NEBRASKA INFORMATION TECHNOLOGY COMMISSION

Tuesday April 30, 2002, 1:30 p.m.
State Capitol Room 1507, Lincoln, Nebraska
Videoconference Sites:
Scottsbluff-Panhandle Station, High Plains Room, 4502 Avenue I
Kearny-Public Library, Information Center, 2nd Floor, 2020 1st Avenue

AGENDA

Meeting Documents:

Click the links in the agenda or click here for all documents (1.3 MB)

1:30 p.m.	Call to Order and Roll Call – Lt. Gov. Heineman				
1:35 p.m.	Notice of Meeting and Approval of February 2002 Minutes* – Lt. Gov. Heineman				
1:40 p.m.	Public Comment				
	Presentation by Nebraska Information Network – "Broadband Internet Access in Rural Nebraska"				
1:55 p.m.	Report from the Councils, Technical Panel and Staff				
	Community Council a. Council Report b. Community Technology Fund Grants (FY2003)* c. Membership* d. Report on Building Information Age Communities Conference e. Report on Technologies Across Nebraska Action Plan				
	Education Council a. Council Report b. Recommendation for new member*				
	 State Government Council Council Report Technical Panel Panel Report Charter amendment (add K-12 representative)* New members (accessibility alternate; K-12 member and alternate)* Staff Update on Information Technology Infrastructure Fund Projects Update on Business Portal 				
2:30 p.m.	Statewide Technology Plan Review 1. <u>Draft Vision, Mission, Goals, and Objectives</u> 2. Update on other sections				
3:00 p.m.	NETCOM Pilot Project update				
3:15 p.m.	Network Nebraska Interim Report				
3:30 p.m.	Business Portal Demonstration				
3:45 p.m.	New Business				
4:00 p.m.	Adjournment				

Meeting notice posted to the NITC and Public Meeting Calendar Websites on April 23, 2002. Agenda posted to the NITC Website on April 24, 2002.

(Bolded * indicates action items)

NEBRASKA INFORMATION TECHNOLOGY COMMISSION

Thursday, February 21, 2002, 9:30 a.m.
State Office Building, 301 Centennial Mall-South, Lower Level F
Lincoln, Nebraska
PROPOSED MINUTES

MEMBERS PRESENT:

Lieutenant Governor Dave Heineman, Chair

Greg Adams, Mayor, City of York

Dr. Dean Bergman, non-voting representative for Dr. Doug Christensen, Commissioner, Department of Education

Dr. Eric Brown, Manager, KRVN Radio (via telephone conference)

Hod Kosman, CEO, Platte Valley Financial Services

Gary Kuck, CEO, Centurion International

Dr. L. Dennis Smith, President, University of Nebraska

MEMBERS ABSENT: L. Merill Bryan, Senior Vice President & Chief Information Officer, Union Pacific

CALL TO ORDER, ROLL CALL AND PUBLIC MEETING NOTICE

Lieutenant Governor Dave Heineman called the meeting to order at 9:30 a.m. Seven Commissioners were present at the time of roll call. A quorum existed to conduct official business. Lieutenant Governor Heineman stated that the meeting notice was posted to the NITC and Public Meeting Calendar Websites on January 24, 2002 and that the meeting agenda was posted to the NITC Website on February 14, 2002.

APPROVAL OF OCTOBER 31, 2001 MINUTES

Commissioner Adams moved to approve the October 31, 2001 minutes as presented. Commissioner Kuck seconded the motion. Roll call vote: Adams-Yes, Brown-Yes, Heineman-Yes, Kosman-Yes, Kuck-Yes, and Smith-Yes. Results: 6-Yes and 0-No. The motion was carried by unanimous vote.

PUBLIC COMMENT

There was no public comment.

REPORTS - COMMUNITY COUNCIL

Anne Byers, Community Information Technology Manager

Leadership and Membership. Craig Schroeder has completed his term as co-chair. The newly elected co-chair is Ron Heezen, Omaha Public Library. Anne Boyle has been elected Chair of the Public Service Commission. In light of her expanded responsibilities, she has resigned as a Community Council member. Gerald L. Vap has been nominated to serve as a new member. Mr. Vap is President of Vap's Seed and Hardware, Inc., and lives in McCook, Nebraska.

Commissioner Kosman moved to approve Gerald Vap as a new member on the Community Council. Commissioner Kuck seconded the motion. Roll call vote: Adams-Yes, Brown-Yes, Heineman-Yes, Kosman-Yes, Kuck-Yes, and Smith-Yes. Results: 6-Yes and 0-No. The motion was carried by unanimous vote.

Community Technology Fund Grants. There is approximately \$200,000 available. Sixty-five proposals have been received and it is anticipated 8-10 projects will be awarded. A list of the Community Technology Fund Grant Applicants was provided to the Commissioners. At the next meeting, the NITC will be approving project funding recommendations.

Building Information Age Communities Conference. The conference will be held on April 12th, at the Leadership Center in Aurora, Nebraska. Speakers so far include: Lt. Governor Heineman; Al Wenstrand, Director, Department of Economic Development; Jane Leonard, Community Technology Advisors. Sponsors are as follows: Office of Governor Mike Johanns, Technologies Across Nebraska, Nebraska Information Technology Commission, Nebraska Department of Economic Development, Nebraska Rural Development Commission, and the Nebraska Public Service Commission. More information will be available within the next couple of weeks.

REPORTS - EDUCATION COUNCIL

Tom Rolfes, Education Information Technology Manager

The Education Council has been working on their four action items via virtual discussion groups and small group meetings

held prior to the regular meeting. Teacher Technology Certification has been an item of discussion. The Training Advisory Work Group training grants information is hosted on the NITC web site. So far, the web site has been hit 324 times. Council members are serving on the Nebraska Network Workgroup, as well as the technical focus group of Nebraska Network.

Recommendation for new member. Dr. Roger Koehler has resigned from the Council. Thomas (Tip) O'Neill, was his alternate. At the January 18th meeting, the Education Council approved the recommendation of Mr. O'Neill as a new Council member. A new alternate will need to be determined.

Commissioner Kosman moved to approve Thomas (Tip) O'Neill as a new member of the Education Council. Commissioner Kuck seconded the motion. Roll call vote: Brown-Yes, Adams-Yes, Smith-Yes, Kuck-Yes, Kosman-Yes, and Heineman-Yes. Results: 6-Yes and 0-No. The motion was carried by unanimous vote.

There were questions regarding Teacher Technology Certification. Mr. Rolfes explained that the State of Nebraska has not implemented technology as part of certification or re-certification for teachers in the state. The State Board of Education approved technology as proficiencies only, not as standards for teachers. Commissioner Smith recommended reviewing information on the NSITE (National Center for Information Technology in Education web site at http://www.ncite.org/. The Education Council's focus group will develop a recommendation and may bring to the NITC at a future meeting.

REPORTS - STATE GOVERNMENT COUNCIL

Steve Schafer, Chief Information Officer

The State Government Council has met three times since the October NITC meeting. Through work groups, the Council has been working on the following issues:

- Electronic forms automation
- Development of central directory services and authentication
- E-government business portal, and
- Revision of the Council's priorities for the Statewide Technology Plan.

Government Technology Collaboration Fund Guidelines (2002 Grant Cycle).

Due to the state's budget situation, Mr. Schafer recommended tabling this item until the next meeting. Without objection, this item was tabled.

REPORTS - TECHNICAL PANEL

Walter Weir, Chair

The Technical Panel continues to meet monthly every second Tuesday. The Panel receives regular updates on the progress of the Work Groups, NETCOM, Wireless Project and NIS (Nebraska Information System).

<u>Video Standards</u>. The Video Standards Work Group was charged with developing this standard and involved representatives from the video industry, K-12 and higher education in the development and/or testing of the proposed standards. The following recommendation for dual video standards was forwarded for approval by the NITC (section below was taken from Video Architecture Standards and Guidelines document):

C. Standards

MPEG-2

- MPEG 2 is specifically intended for applications that require high quality video or "full motion video."
- Expected data rates include T-1 (1.5 Mbps) or higher.

H.263 video with G.722audio

- Low data rate teleconference applications.
- Expected data rates less than T-1 (1.5 Mbps).

D Applicability

These standards apply to synchronous distance learning and videoconferencing facilities as follows:

- If utilizing state owned or leased communications networks:
 - o Any synchronous distance learning facility or videoconferencing application which utilizes state owned or leased communications networks must comply with the compression standards listed in S ection C; or
 - o The entity must provide, or arrange for, the necessary gateway technology to comply with the standards.
- If using state funding:

- All new facilities or applications receiving state funding must comply with the compression standards listed in Section C, unless the facility is joining an existing, non-compliant consortium contract.
- All existing facilities or applications receiving state funding for ongoing operations must convert to the standards listed in Section C as soon as fiscally prudent or upon renewal of any existing communications service contract, whichever comes first.

Commissioner Smith moved to approve Video Architecture Standards and Guidelines. Commissioner Brown seconded the motion. Roll call vote: Kuck-Yes, Brown-Yes, Adams-Yes, Smith-Yes, Kosman-Yes, and Heineman-Yes. Results: 6-Yes and 0-No. The motion was carried by unanimous vote.

Discussions occurred regarding: consortiums being held back with new standards not an issue; industry participation; high costs of T1 lines in rural areas like Scottsbluff; and the influence of the NITC in making connectivity affordable to communities.

<u>Incident Reporting Procedure</u>. Mr. Weir recommended that this be tabled so that Mr. Schafer can research the FBI's procedures and practices for incident reporting. Without objection, this item was tabled.

REPORTS - STAFF

Statewide Technology Plan Review Update (Schedule and Process).

State statute requires the Statewide Technology Plan be updated annually by July 1st. Below is the proposed timeline for the Statewide Technology Plan review and update:

February and March: Technical Panel and Councils work on priorities, implementation plan and effectiveness measures April: NITC reviews vision, mission statement, goals and priorities; and Councils continue work on implementation plan and effectiveness measures:

May: Draft revisions provided to NITC for review and comment

June: NITC reviews and adopts 2002 Statewide Technology Plan.

Commissioner Smith would like to have progress report on the accomplishments of this year's statewide plan, and recommended conducting a survey of communities to get data on connectivity capabilities including costs of the service. Lieutenant Governor Heineman directed Mr. Schafer to meet with each commissioner to discuss the NITC's vision and goals in preparation for the April meeting.

Nebraska Information Technology Commission 2002 Work Plan.

Mr. Schafer provided this an informational item for the Commissioners' awareness of projects for the upcoming year.

Project Status Summary, January 2002.

Commissioners received the written report prior to the meeting. There were no questions.

Update on Information Technology Infrastructure Fund Projects.

Steve Schafer, Chief Information Officer, State of Nebraska

NIS (Nebraska Information System). The project is behind schedule and the project team will be meeting to make adjustments to the timelines.

Wireless. Brenda Decker stated that LB1211 was introduced this session to address this issue. Ms. Decker provided an update on the project, LB1211 and related issues. Lieutenant Governor Heineman stated homeland security is a priority nationwide and that there may be federal dollars available to assist in this effort.

CJIS. Mr. Schafer reported that the agency is focusing on implementing an application for prosecutors. Once this is in place, Nebraska will have a fully implemented online law enforcement system from arrest to prosecution. It will take awhile for jurisdictions to be fully implemented.

Business Portal. The web site is a couple weeks away from being launched www.nol.org/business will include a search engine for businesses to access and will have other informational links for businesses. The Office of the Chief Information Officer has a grant from the State Records Board for forms automation. Commissioner Kosman commended the Game and Parks Commission for the services available on their website.

NETCOM UPDATE

Lieutenant Governor Heineman, along with Mr. Schafer, Mr. Weir and Ms. Decker, met with the representatives from the telecommunications industry to discuss issues, concerns and provide clarification about the goal and purpose of NETCOM. The State of Nebraska must provide proof of concept and prove demand and participation from state agencies, higher education and K-12. As part of this validation, it was felt that a pilot project, that would involve all entities, should

be conducted.

Commissioner Smith moved to endorse the <u>NETCOM Pilot Project Proposal</u> to provide proof of concept. Commissioner Kosman seconded the motion. Roll call vote: Kosman-Yes, Adams-Yes, Heineman-Yes, Brown-Yes, Smith-Yes, and Kuck-Yes. Results: 6-Yes and 0-No. The motion was carried by unanimous vote.

There was a question as to timeline for the project. It is anticipated that the project will be conducted as soon as possible.

NEBRASKA NETWORK

At the October 31st NITC meeting, the Commissioner passed a resolution to form the Nebraska Network Work Group whose purpose is to evaluate the feasibility of the development of a digital network and related support functions to serve education, communities, and state government that could be accomplished through a statewide consortium. The Work Group met informally on February 11th. There were approximately thirty people in attendance. Mr. Schafer and Mr. Weir provided their perceptions and thoughts on the meeting.

Commissioner Brown moved to approve the <u>Nebraska Network Workgroup Charter and membership</u>. Commissioner Adams seconded the motion. Roll call vote: Smith-Yes, Heineman-Yes, Kuck-Yes, Kosman-Yes, Brown-Yes, and Adams-Yes. Results: 6-Yes and 0-No. The motion was carried by unanimous vote.

NEW BUSINESS

Lieutenant Governor Heineman informed the Commissioners that their appointment terms were over in April, with the exception of Commissioner Kosman. If Commissioners are interested in serving another 4-year term, they are to contact Lieutenant Governor Heineman via a written letter or email.

Commissioner Kosman stated that Commissioner Brown has written a book on the history of radio in Nebraska. It is available at the Nebraska Bookstore.

NEXT MEETING DATE AND TIME AND ADJOURNMENT

The next meeting of the Nebraska Information Technology Commission will be held on Tuesday, April 30th, 1:30 p.m. The location will be determined at a later time.

Commissioner Kosman moved to adjourn. Commissioner Brown seconded the motion. All were in favor. The motion was carried by voice vote.

The meeting was adjourned at 11:09 a.m.

Minutes were taken by Lori Lopez Urdiales and reviewed by staff of the Office of the CIO/NITC.

To: NITC Commissioners

From: Anne Byers, Community IT Manager

Subject: Community Council Report

Community Technology Fund. The Nebraska Information Technology Commission received 64 eligible applications for the 2002 Community Technology Fund. Each application was reviewed by three reviewers and the scores of the three reviews were averaged. The table on the following page ranks the applications by their average review scores. At their April 11 meeting, the Council recommended funding as many projects as possible with available funding, using the ranking based on review scores to prioritize awards. As required by statute, the Technical Panel approved the grant reviews at their April 16 meeting.

Based on the \$200,000 originally anticipated to be available for funding, the 11 projects recommended to receive grant awards are listed below:

Score	Entity	Project	
88	City of Ashland	Ashland Digital City Hall	7,629.00
86	Sarpy County	Sarpy County GIS Base Map	25,000.00
86	LaVista Public Library	Basic Scanning Classes	3,612.06
85	Cherry County Hospital	Interactive Video/Distance Learning Network	11,136.00
83	Valley County Hospital	Interactive Video/Distance Learning Network	19,623.00
83	Omaha Public Library	Connect IT Omaha	25,000.00
82	City of Aurora	City of Aurora, Utilities GIS	\$25,000.00
82	Central Community College	Sink or SwimEducating the Rural Labor Pool	18,518.00
82	University of Nebraska Extension	Building Information Age Communities Planning Mini Grants	20,000.00
81	Franklin County Memorial Hospital	Electronic Archiving of Medical Records	\$22,292.00
81	City of South Sioux City	South Sioux City Wireless Municipal Area Network	\$13,250.00
			191,060.06

Membership. The terms of several members of the Community Council are up for renewal. A list of these members is included in the meeting materials.

Building Information Age Communities Conference. The Building Information Age Communities Conference was held April 12 in Aurora, Nebraska. The conference was organized by the NITC Community Council and Technologies Across Nebraska drew approximately 135 participants from 43 Nebraska communities. A summary of the conference evaluation is included with the meeting materials.

Technologies Across Nebraska Action Plan. The Community Council has worked with Technologies Across Nebraska to develop an action plan. This action plan was approved by Technologies Across Nebraska partners at their March meeting. The action plan builds upon the recent conference and lays out a series of next steps. A copy of the action plan is included in the meeting materials.

Community Technology Fund 2002 Review Summary

Score	Entity	Project				
88	City of Ashland	Ashland Digital City Hall	7,629.00			
86	Sarpy County	Sarpy County GIS Base Map	25,000.00			
86	La Vista Public Library	Basic Scanning Classes	3,612.06			
85	Cherry County Hospital	Interactive Video/Distance Learning Network	11,136.00			
83	Valley County Hospital	Interactive Video/Distance Learning Network	19,623.00			
83	Omaha Public Library	Connect IT Omaha	25,000.00			
82	City of Aurora	City of Aurora, Utilities GIS	\$25,000.00			
82	Central Community College	Sink or SwimEducating the Rural Labor Pool	18,518.00			
82	University of Nebraska Extension	Building Information Age Communities Planning Mini Grants	20,000.00			
81	Franklin County Memorial Hospital	Electronic Archiving of Medical Records	\$22,292.00			
81	City of South Sioux City	South Sioux City Wireless Municipal Area Network	\$13,250.00			
80	City of Wayne	Library Access for All	\$42,500.00			
80	City of Lincoln	Constituent Services Tracking System	\$24,940.00			
80	Cass County	Cass County Bandwidth Initiative	25,000.00			
79	City of Friend	Friend Community Intergeneration Technology Program	\$24,940.00			
79	Bellevue Public Library	Public Access Computer Network	18,149.00			
78	Northeast Community College	Information Technology Tools for the Y-Generation	\$24,981.00			
78	Greeley Public Schools	Greeley Learning and Technology Center, Phase 2	25,000.00			
77	• •	Telecommunications Infrastructure Videp	20,858.00			
76	Village of Cedar Creek	Community Technology Upgrade	\$3,647.00			
76	City of Curtis	Frontier Adventure Web Site	21,500.00			
75 75	Homer Community School	Educating Through Mobile Technology	25,000.00			
75 75	City of West Point	West PointAn Emerging Information Age Community	24,000.00			
75 75	City of Central City	Joint Emergency Mgmnt Information and Response System	19,516.80			
75 74	University of Nebraska BKR Extension	Mobile Computer Lab	25,000.00			
74 72	Cheyenne County	Cheyenne County Community Portal	25,000.00			
72 72	Village of Hemingford Village of Holbrook	Village of Hemingford Information Access Project ROOTS (Rural Options and Opportunities for Technology)	11,589.31 16,632.00			
71	Sargent Township Library	Computer System for Sargent Township Library	\$2,865.10			
71	Perkins County Extension	Internet Access to Public Services	6,070.00			
70	City of Plainview	Plainview Community Connection	20,540.00			
69	Elmwood-Murdock Public School	Elmwood-Murdock Community Streaming Video Project	7,602.00			
68	City of Blair	City of Blair Geographic Information System	\$25,000.00			
68	Rock County High School	Rock County Regional Computer Education	\$15,990.00			
67	Fillmore County	Fillmore County GIS Program	\$25,000.00			
67	ESU #16	Water Wonder Web	\$25,000.00			
67	Pierce Public Library	Pierce Public Library Community Technology Center	22,500.00			
67	Kearney County Assessor Office	Kearney County GIS	25,000.00			
67	Midland Area Agency on AgingWebster	Rural Nebraska Technology Lab 2002	17,950.00			
67	City of Grand Island	Interactive Community Informational Kiosk	25,000.00			
67	Sumner-Eddyville-Miller School Dist.	Library/Media/Technology Center	25,000.00			
67	Village of Walthill	Upgrade Circulation, Provide Internet Access	25,000.00			
66	College Park Consortium Partners	Building Community Development Partnerships	25,000.00			
65	Village of Cedar Rapids	Cedar Rapids Police Department On-line	2,000.00			
65	Lower Platte North NRD	The Technologically Empowered Elected Official	14,250.00			
64	Sherman County	Sherman County Technology Grant	\$25,000.00			
64	Adams Central School	Public Announcements Through Reading Info on the Sign	19,600.00			
61	Village of Cordova	Cordova Technology Enhancement	9,700.00			
61	City of Hampton	Hampton Technology Program	9,775.00			
61	Village of Rising City	Rising City Leading Edge Information Program	5,800.00			
61	Central Community College	Enhancing Access to Quality Health Care Education	25,000.00			
61	Village of Benedict	Benedict Community Technology Program	9,975.00			
61	ESU 4	BYTE Business, Youth, Technology & Education	25,000.00			
Commu	Community Technology Fund 2002 Review Summary 1					

61	Mid-Plains Community College Area	Get Fluent in Information TechnologyGet FIT	24,500.00
60	Village of Polk	Polk Technology Program	9,675.00
60	University of NebraskaPlatte County	21st Century Interactive Learning Facility	25,000.00
58	Little Blue NRD	Customer Communication Interactive Link	24,520.00
58	City of Osmond	Osmond's Technology Project	8,875.00
58	City of Omaha	Problem Resolution Team Shared Database	25,000.00
52	City of Plattsmouth	Globalize Plattsmouth	\$12,500.00
52	Grand Island Veteran's Home	Computer Training Lab and Training Resources	25,000.00
48	University of Neb ExtDouglas/Sarpy	Wireless Computer Lab for Educational Purposes	23,102.00
46	Jackson Public School	Jackson Community Technology Center	18,362.00
36	City of Hastings	IT Audit and Web Redesign	25,000.00

Project Title: Ashland Digital City Hall

Submitting Entity: City of Ashland

Grant Amount Requested: \$7,629

Evaluation Score: 88

Executive Summary: The City of Ashland wishes to purchase a LaserFiche system to scan all City documents into a format that is easily searchable, provides more convenient access to the public and our staff, and allows for secure, off-site storage of City records. Many City records have seriously deteriorated, and continue to be damaged the more they are handled. Our proposed project provides an alternative means of viewing our records, with the added benefit of providing access to those same records on the internet for easy access by the public. We will also demonstrate our project to a number of other interested cities, so we may all benefit through collaborative learning and cooperation.

Comments: This project is designed to provide a model for other small communities and includes a peer-review process.

Project Title: Sarpy County Geographic Information System (GIS) Base Map

Submitting Entity: Sarpy County

Grant Amount Requested: \$25,000

Evaluation Score: 86

Executive Summary: The Sarpy County Geographical Information System (GIS) Coalition was created to develop a <u>unified</u> GIS. A GIS is a "computer technology that combines geographic data (the locations of manmade and natural features on the earth's surface) and other types of information (names, classifications, addresses, and much more) to generate visual maps and reports." In the operation of local governments, a myriad of services are tied to land location, e.g. police and fire services, street construction and maintenance, economic development, tax assessment, planning, etc.

The highly technical process of developing the GIS land base map will be completed through a contract with an engineering firm with assistance from a software/technical consultant. Once a single county-wide land base map is developed, each entity can overlay specific information needed by them without having to duplicate the efforts required to create and maintain basic information regarding the location and description of streets, lots, rivers, section lines, etc. The development of the GIS will greatly enhance the accessibility of information to local government departments, decision-makers and to the public.

Comments: This project contains all of the components of a cooperative effort to implement GIS throughout the county government structure.

Project Title: Basic Scanning Classes

Submitting Entity: La Vista Public Library, La Vista, NE

Grant Amount Requested: \$3,612.06

Evaluation Score: 86

Executive Summary: Basic Scanning Classes are a service the La Vista Public Library has offered in the past. Because of the age of and wear on the library's scanner, six basic scanning classes had to be cancelled. The instructor has had 47 people recently approach her about scanning classes. The library's budget has not allowed the purchase of a new scanner. The library's project is to obtain a network scanner and re-establish basic scanning classes on a regular basis, a minimum of two classes a month, for the community of La Vista. Classes will be offered to the library's partner, Metropolitan Community College's Sarpy Center, and the City of La Vista, to promote and educate their staff members on basic scanning, as well as being offered to library patrons, library staff, and community members.

Comments: This is a well-written application. The applicant clearly defines the need for scanning classes and demonstrates a strong community partnership. The proposal requests only a small amount.

Project Title: Interactive Video/Distance Learning Network

Submitting Entity: Cherry County Hospital

Grant Amount Requested: \$11,136

Evaluation Score: 85

Executive Summary: Cherry County Hospital is a member of the Heartland Health Alliance (HHA), a 33-member hospital network in Nebraska and northeast Kansas. Through a strategic planning process, HHA has identified interactive video as the most effective and efficient technology to address health care challenges faced by its member rural hospitals and the patients they serve. To date, six member hospitals have access to the HHA's Interactive Video/Distance Learning System. HHA is working to provide interactive video to at least 10 additional rural hospital sites across the state, one of those being the Cherry County Hospital.

This application requests funding assistance to install the interactive video system at the Cherry County Hospital in Valentine, Nebraska. Installing interactive video at the hospital will provide Cherry County the opportunity to access medical and educational programming opportunities that are not currently available without, in many cases, significant travel time, time away from work and home, and cost. Also, the interactive video will provide the technology needed to support the development of telemedicine and telehealth services in Cherry County.

Comments: The need for services in rural Nebraska is well documented.

Project Title: Interactive Video/Distance Learning Network

Submitting Entity: Valley County Hospital

Grant Amount Requested: \$19,623

Evaluation Score: 83

Executive Summary: The proposed interactive video/distance learning center project can be described as a fiber optic based, full-motion, interactive video connection to virtually anywhere in the world with a dial-up connection. The interactive video has been identified as the most effective and efficient technology by the Heartland Health Alliance, the largest hospital network in the State of Nebraska, of which Valley County Hospital is a member. This type of technology would allow connectivity to similar resources available in urban areas. These resources would enable residents and providers of our communities to receive additional access to medical and educational programming that is not currently available to them locally or regionally. In addition, the learning center would provide many educational opportunities including the LPN to RN program, and special training in the areas of medical technology, radiological technology, respiratory therapy and pharmacy technology.

This project is of great importance to the Valley County Economic Board, the Greater Loup Valley Activities, Inc., and the Ord Public Library (co-partners) as it would be a key component of the economic development efforts in Valley County and the surrounding communities. This project is extremely important for the advancement of technology and educational opportunities that would be made available to area businesses, students, and many other sectors of our different communities.

Comments: This project demonstrates strong community support.

Project Title: Connect IT Omaha

Submitting Entity: Omaha Public Library

Grant Amount Requested: \$25,000.00

Evaluation Score: 83

Executive Summary: The Omaha Public Library, in partnership with the AIM Institute, Greater Omaha Workforce Development, Opportunities/Jobs/Careers (OJC), and two local businesses will develop the prototype for a proposed area-wide public information system offered through public kiosks, giving even those without computer connectivity critical access to the wealth of digital information available from governmental and non-profit sources, including the public library, state, and local government. When the full network is implemented, developers expect to provide over 10,000 users monthly with coordinated access to a wide variety of career development/employment information designed to prepare the region's 21st Century workforce and address labor availability issues.

This project intends to make government more accessible by placing, at local malls and in more remote but high-traffic shopping areas, library kiosks with high-speed Internet connections and featuring links to city, county, and state governments as well as career information and library collections. We are asking for funds to initiate the pilot installation for the entire program. The opening placement funded by this grant would be located at the busiest of the potential sites to test response and evaluate the entire program.

Comments: Expanding the access to electronic resources is an excellent idea for catching customers that might not have the equipment and/or opportunity to use the Internet. The project demonstrates excellent cooperative planning.

Project Title: City of Aurora, Utilities GIS

Submitting Entity: City of Aurora

Grant Amount Requested: \$25,000

Evaluation Score: 82

Executive Summary: We have two primary purposes for seeking this grant. We wish to implement a GIS system in Aurora but more importantly, we wish to demonstrate that a smaller Nebraska Community (cities of the 2nd Class – less than 5,000 pop.), by PARTNERING with other governmental units can find an economical means to implement GIS by using the digital data bases other public and private agencies and organizations have already compiled about our communities. The use of GIS is fairly common among the state's larger communities. One must ask the guestion, "Why are GIS applications not used by smaller, Nebraska communities?" The answer is not that smaller communities do not grasp the beneficial aspects of technology applications, it is cost. It is costing some Nebraska cities of the First Class (pop. Greater than 5,000) \$150,000 to \$200,000 to set up their GIS programs. We feel that by using GIS resources currently available from other governmental jurisdictions, the City of Aurora will demonstrate that GIS can be affordable and a useful tool for the smaller communities of Nebraska which establish partnering relationships with other local and state units of government. We are seeking funds for the development and implementation of a public works and utilities Geographic Information System (GIS) for the City of Aurora with the data available to the public. This will be a powerful tool that our community will use for accurate record keeping, inventory, planning, clerical automation, analyses, reporting and maintenance of our utility systems. Information contained within the GIS will easily be shared with other city and county agencies, such as the police, fire, ambulance, economic development, roads, and extension. The GIS will integrate county parcel and landowner GIS information that the Hamilton County Assessor is currently compiling in the County GIS system. By integrating the county and city level GIS we aim to encourage further agency co-operation in an effort to save taxpayer dollars and provide timelier taxpayer services. Cooperation from the South Central Nebraska RC&D, Department of Roads and Upper Big Blue NRD in sharing existing data bases, as well as the existing data base already developed by the City's consulting engineering firm will form the foundation for our GIS project. The City's existing policy of requiring that new subdivisions and utility extensions be submitted in digital format will insure the continual upkeep of the GIS data base.

Project Title: Sink or Swim – Educating the Rural Labor Pool

Submitting Entity: Central Community College

Grant Amount Requested: \$18,518

Evaluation Score: 82

Executive Summary: At least 5,280 rural Nebraskans enroll annually at CCC's Learning Centers. CCC's community learning centers are innovative in the state.. Today many instructors are incorporating technology into the curriculum. Some courses require computer access. Some have testing that needs to be done on the computer. E-mail also provides an excellent way to communicate with instructors. Citizens taking the college's new on-line courses may need to take a test, on-line, that is proctored at the learning center.

The goal of this project is to acquire and install the necessary computer hardware, software and Internet link (where the internet link is not already available at the learning center site) in a pilot group of 6 CCC learning centers in economically depressed counties for general education and job skills training for rural communities.

Project partners include Alma Public Schools, Franklin Public Schools, Lawrence/Nelson Community Schools, Superior Public Schools, the C.B. Preston Memorial Library (Orleans), and Central Community College.

Comments: This is a well-written application, targeting areas with a need for expanded educational opportunities.

Project Title: Building Information Age Communities Planning Mini Grants

Submitting Entity: University of Nebraska Cooperative Extension

Grant Amount Requested: \$20,000

Evaluation Score: 82

Executive Summary: The University of Nebraska's Technologies Across Nebraska initiative, in partnership with the Nebraska Information Technology Commission's Community Council, is proposing a mini grant program to provide 8 Nebraska communities or regional groups with up to \$2,500 in funding for conducting community assessments or other activities which support the development of community or regional plans to utilize information technology to enhance community and economic development. The communities or regional groups receiving the planning mini grants will also serve as pilot communities for the Community IT Toolkit materials developed by the NITC and Technologies Across Nebraska (http://www.nitc.state.ne.us/toolkit). Regional resource teams from Technologies Across Nebraska will provide assistance to the pilot communities. An electronic discussion list will also link members of community IT committees together so that they can learn from each other.

Comments: This project clearly supports the Community Technology Fund priorities. Community information technology plans are very important and this proposal is a good way to provide support for such plans in 8 communities.

Project Title: Electronic Archiving of Medical Records

Submitting Entity: Franklin County Memorial Hospital

Grant Amount Requested: \$22,292

Evaluation Score: 81

Executive Summary: This project will address an identified need for our hospital and the certified Rural Health Clinics we operate. Medical record storage is now in paper form, the hospital records and the four rural health clinics records are separately stored in file cabinets, some over twenty five miles away from the hospital. Technology exists that will integrate these medical records into an electronic form, accessible through encrypted Internet services to qualified practitioners.

This project will improve patient outcomes as the attending practitioner will be able to view any patients record from any of the five sites operated by the hospital. Additionally, we utilize locum tenens physicians in our emergency room, this project will improve accessibility to medical histories and medications via the hospital computer. Technology will involve a computers, scanners, software, and a protected network. Administrative personnel will scan in current records, providing daily updating when patients present for medical services. By automating the process, accessibility will be available at any hour of the day from five separate locations. A project that will result in improved medical care and also improve secure storage of the medical records.

Comments: Progressive, good project. Patient care will benefit.

Project Title: South Sioux City Wireless Municipal Area Network

Submitting Entity: City of South Sioux City, Nebraska

Grant Amount Requested: \$13,250.00

Evaluation Score: 81

Executive Summary: The South Sioux City Wireless Municipal Area Network project will create wireless access points or "hot spots" at ten (10) strategically identified areas in the community. The "hot spots" will allow access to the municipal area network or the Internet with wireless enabled devices like laptop computers, Digital Phones, or Personal Digital Assistants (PDAs) through a 802.11b standard for wireless Ethernet transmission. This project is a collaborative effort involving many partners: City of South Sioux, South Sioux City Public Schools, South Sioux City Police Department, South Sioux City Fire Department and South Sioux City Library.

This wireless project will create numerous benefits for the citizens of South Sioux City and for each project partner including: allowing the Police Department to better utilize recently installed Mobile Data Computing terminals to create a safer City, the School to create a wireless access network and increase learning opportunities for students, an increase in Internet access for students at the Library and School, the Fire Department to utilize GIS maps of fire hydrants and flow tests to provide a faster response to emergencies, and the City to provide faster more efficient services to its citizens. This project will build on a small existing wireless network. With the assistance provided by the NITC, the City of South Sioux City and its partners will be able to better provide services to their stakeholders utilizing

Comments: Support from diverse interests should contribute to overall success after initial implementation and early performance monitoring.

Project Title: Library Access for All

Submitting Entity: City of Wayne

Grant Amount Requested: \$42,500

Evaluation Score: 80

Executive Summary: The City of Wayne, the Wayne Community Schools, and Wayne State College have joined together to expand and improve the library services offered to the citizens of Wayne and Northeast Nebraska through software upgrades, hardware updates, and expanded user training. This project is an extension of the interlocal agreement already in place between these entities. It is designed to put the three school libraries and the public library catalogs on the same interface to facilitate moving the user between collections as well as to provide 24-hour access to the databases.

To achieve that goal, this grant request seeks funding to purchase software and hardware, to provide staff development, and to expand information technology instruction. A newly developed community website will serve as the host for hyperlinks to five libraries (three schools, one public library, one college library). The college library catalog is currently accessible through their academic website, but this project will make it more visible to the local public by placing a link on the community website with the other four libraries. The school district's library automation software must be upgraded from DOS to the Windows environment before it can interface with the Internet. The public library needs to add Internet software to their current automation package, and additional computers and projection equipment must be purchased to facilitate instruction for staff and patrons in the region.

Comments: The applicant requests \$42,500 even though the limit is \$25,000.

Project Title: Constituent Services Tracking System

Submitting Entity: City of Lincoln, Finance Department, Budget Office

Grant Amount Requested: \$25,000

Evaluation Score: 80

Executive Summary: The project will improve tracking of constituent concerns as they are addressed by different City departments and divisions. Presently, due to different electronic tracking systems within each department and division, the Ombudsman (Citizen Advocate) or other City staffers must track constituent concerns by making phone calls, reviewing hard copy files, or not at all. Frequently, the result is that constituent concerns fall through the "cracks" as a concern travels from one department to the next. The proposed project will address this need by developing a prototype of an electronic tracking system that bridges the different tracking systems of the various departments. The electronic tracking system will be able to determine if constituent concerns have been addressed, which departments receive the largest number of concerns, help determine where cost efficiencies could be improved, and produce quarterly reports by department.

A City Team has been formed to address this need. The City Team will work with the University of Nebraska - Lincoln's J.D. Edwards Honors Program Design Studio. The Design Studio is a class of computer/technology oriented honors students who take on a project for the entire school year to develop software and other systems, solving technology related problems in both the public and private sectors. The Design Studio, in partnership with the City Team, will develop the technological prototype solution addressing the City's challenge in tracking constituent concerns.

Comments: This is a well-written application with a strong match.

Project Title: Cass County Bandwidth Initiative

Submitting Entity: Cass County, Nebraska, Economic Development Council

Grant Amount Requested: \$25,000

Evaluation Score: 80

Executive Summary: The Cass County Nebraska Economic Development Council, IT Task Force was formed in 2001 one with one goal; to provide Internet bandwidth to all of Cass County. This volunteer organization is made up of representatives from municipalities of Cass County, most representatives being experienced and knowledgeable in communications and information technology. We have met through the past year to assess needs and develop strategies. The IT Task Force has defined an achievable mission to provide high-speed Internet access (at least 128K for residential and 256K for business customers) to all county residents within three years. Our immediate objective is to implement a pilot project of 1-2 communication cells by the end of 2002. Cass County, Nebraska seeks funding of \$25,000 for the implementation of the pilot project in 2002.

Cass County lies between Lincoln and Omaha, Nebraska's two major population centers. Our close proximity to these large business centers should provide significant business development potential. However, Cass County has not experienced the economic development that potentially exists. The Economic Development Council recognizes the lack of Internet connectivity to support ecommerce as a primary factor stunting business growth in our county. Most of the county residents and businesses are limited to 28K dial up Internet connections, with no other choices aside from expensive private lines.

Comments: This is a very interesting proposal. The proposed project could serve as a demonstration project for other communities. The county-wide focus shows collaboration. Well-written application. Not clear who the ISP will be and if users fees will sustain the project. Planned involvement of business community is a positive. There will be issues when ISP provides voice services which they would be capable of initially. Cass County terrain coupled with wireless solution seems problematic.

Project Title: Friend Community Intergenerational Technology Program

Submitting Entity: City of Friend d/b/a Warren Memorial Hospital/LTC & Friend

Public Schools

Grant Amount Requested: \$24,940

Evaluation Score: 79

Executive Summary: Warren Memorial Hospital/LTC in conjunction with Friend Public Schools submits to provide development of IT understanding and participation through the collaboration of intergenerational learning. Through this program high school students will instruct long-term care residents on the use and value of Internet and word processing skills, including skills needed for emailing capabilities. With this information, elementary students and the residents will cooperatively form an internet based "adopt a grandparent" program whereby students will learn valuable history and entertaining facts about their "grandparent", and the students will become more familiar with the use of the computer. Future plans may also include involvement at the junior high level assisting residents in the development of individual web pages for family members and loved ones to enjoy.

Comments: This is a well-written application with evidence of strong community partnerships.

Project Title: Public Access Computer Network

Submitting Entity: Bellevue Public Library

Grant Amount Requested: \$18,149.00

Evaluation Score: 79

Executive Summary: The tremendous growth of the Information Age has made it imperative that the public has fast and reliable access to electronic resources. The public library plays a vital role in providing such access to persons of all ages and socioeconomic and educational backgrounds. The proposed public access computer project would help fund the connection of the Library to the City of Bellevue's T1 line, provide for the addition of four new Internet stations, a networked printer, upgrade (replace) five other Internet stations, as well as software for all stations. The project would not only greatly improve Internet access for the public through faster connections, but it would also allow for additional services such as word processing and access designated specifically for children's needs. Furthermore, the project would provide for a more cohesive and efficient management of these services by the Library, as well as make possible the offering of educational courses related to information technology.

Comments: This is a good project, that could be made stronger with the addition of local partners. As it stands, the project, simply put, is to upgrade internet accessible pcs in the adult section of the library and to add two internet pcs to the juvenile area.

Project Title: Information Technology Tools for the Y-generation

Submitting Entity: Northeast Community College (NECC)

Grant Amount Requested: \$24,981

Evaluation Score: 78

Executive Summary: Five secondary schools and one community college have joined forces and resources to meet a variety of information technology (IT) needs in northeast Nebraska. These six schools formed the Technology Academy of Northeast Nebraska (TANN) in the fall of 2001 and are taking steps to become an Academy of Information Technology (a National Academy Foundation program). "The Academy of Information Technology introduces students to the broad career opportunities in today's digital workforce and, in the process, equips them with the personal, analytical, technical, and communications skills they need to thrive." Typically, the National Academy Foundation approves an individual school to implement an academy but in this case it is approving the six partner schools to implement one academy.

Through the Technology Academy of Northeast Nebraska, the partner schools hope to develop a pool of qualified IT employees for northeast Nebraska. While this will take several years, the following objectives have been established for the first year: 1) Develop a local advisory board to assist with the development, evaluation, and financial support of the Academy; 2) Recruit prospective students to apply for acceptance into the Academy; 3) Review curriculum and establish course sequence; 4) Begin training teachers interested in teaching IT courses; 5) Offer initial coursework for ninth and tenth grade students during the of Fall 2002; 6) Establish a dedicated computer room on the campus of NECC where Academy courses will be taught. TANN is requesting NITC funds to equip this classroom with computers and software needed to teach the IT courses.

Comments: This is an interesting project with evidence of strong partnerships. There are concerns regarding the alignment of the NAF with the ISTE Student Technology Standards.

Project Title: Greeley Learning & Technology Center, Phase 2

Name of Submitting Entity: Greeley Public Schools

Grant Amount Requested: \$25,000

Evaluation Score: 78

Executive Summary: The primary goal of this project is to increase the accessibility of up-to-date resources, job skills and business training, and labor force education for all communities and residents of Greeley County by establishing a one-stop community learning and technology center so the citizens can increase their per capita income while still enjoying the good life in Greeley County. This 2002 project request will fund: a part time telework coordinator, a part time distance learning technology coordinator, staff training and development, promotion of the job skills training opportunities, and on-line and other project oriented training materials.

County and regional partners include: Greeley Public Schools, Village of Greeley, Greeley County Technology Task Force, Greeley Community Foundation and Central Community College. Sponsors of the project include Spalding Public Schools, Wolbach Public Schools, North-Loup Scotia Public Schools, Educational Service Unit #10, Laurel-Concord Community Learning Center, Progressive Swine Technologies, Maxum Productions, and several additional community/business volunteers.

Comments: This is a fairly well-written application. Phase I of this project received funding from the 2001 Community Technology Fund, begging the questions: Do we want to fund projects two years in a row or should we distribute the limited funds among a greater number of communities? Is this project really sustainable? Should we expect annual grant requests?

The applicant requests \$1,000 for library books. Community technology funding should not go toward library books. Also it is hard to justify \$4,000 for software when no information on the titles is given. The applicant also requests grant funding for new positions. This intensifies concerns about sustainability.

Project Title: Education Video to Help Communities Understand

Telecommunication Infrastructure Alternatives

Name of Submitting Entity: UNL - Center for Applied Rural Innovation (CARI)

Grant Amount Requested: \$20,858

Evaluation Score: 77

Executive Summary: From an economic business perspective, it is critical that Nebraska businesses and entrepreneurs have the technical access and knowledge to use information technology to be competitive and expand market opportunities. How to use information technology was a key issue identified in a survey completed by CARI and the AIM Institute during 2000.

This grant proposes the development of an overview video and accompanying discussion guide to explain the technical aspects and costs associated with the various technologies; duplication of these materials; training on the use of the videos, and presentations in communities throughout the State of Nebraska.

Comments: There is definitely a need for materials to help communities understand telecommunications. The shelf life of a video on this subject is a concern. Evidence of partnerships with other entities outside of the University would have strengthened this proposal.

Project Title: Community Technology Upgrade

Submitting Entity: Village of Cedar Creek, Cedar Creek, Nebr. 68016

Grant Amount Requested: \$ 3647.00

Evaluation Score: 76

Executive Summary: A Village Technology Office will be developed. At this time our village clerk/treasurer has no operating computer for any processing or retrieval of village or county information. She relies on a typewriter and a fax and copier machine that have been obsolete for some time. This computer, copier and fax machine will be used by village residents, clerk/treasurer, board members, fire department personnel, county sheriff officers, and available for any other village residents approved by the village board. The village needs to be able to use the Internet and other computer software and hardware to be able to serve the residents in a 21st century application. We need to be able to provide a central information database for use by our 20 person volunteer fire department. (Training and state agency affiliations) Develop a Cedar Creek Web page based from the village office and supported by the community. A very basic web page is now built and run from a local resident's computer, entirely supported by her as a gift to the community. The village needs to publish a monthly or quarterly newsletter featuring stories, items of interest and public notices.

Comments: This is not an innovative proposal, but a clear need exists to bring the village offices and the community into the computer age.

Project Title: Frontier Adventure Web Site-Promoting Economic Development

Submitting Entity: City of Curtis

Grant Amount Requested: \$21,500

Evaluation Score: 76

Executive Summary: The Medicine Valley Economic Development Corporation plans to create a marketing presence for Frontier County with the purpose of recruiting residents and providing business development.

Grant funds are being requested to hire a web design company to develop, market, and maintain a web presence for Frontier County. In addition, grant funds will be used to host an Information Technology Conference for the purpose of educating local businesses in the importance of participating in the project and to encourage local residents in the use of the Internet in supporting businesses.

Comments: This is a solid project.

Project Title: Educating Through Mobile Technology

Submitting Entity: Homer Community School

Grant Amount Requested: \$25,000

Evaluation Score: 75

Executive Summary: Our intentions are to provide a mobile computer lab consisting of 24 laptop computers located on a portable cart that can be connected to the Internet via high-speed wireless networking. Not only do we hope to reach the students of Homer Community School but also the adults of the community through adult education classes at the school and offering community members the opportunity to have students bring a portable computer to their home or business and demonstrate how computers can help them in their homes or place of business. In addition, we will offer an open computer lab that will allow members of the community high-speed access to the Internet, which is currently unavailable in Homer. Another feature of our project is to allow access of the mobile lab to the HIWAY (Homer's Involvement With Adults and Youth) organization after school and during the summer to facilitate learning with the youth and adults in our community. Our project will also provide for the technical expertise needed to install and maintain this mobile technology.

Comments: This is a good project with strong community involvement.

Project Title: West Point – An Emerging Information Age Community

Submitting Entity: City of West Point

Grant Amount Requested: \$24,000

Evaluation Score: 75

Executive Summary: Last summer the West Point Area Telecommunications Committee, the West Point Chamber of Commerce and the University of Nebraska Cooperative Extension, with the assistance of the City of West Point, conducted a telecommunications assessment of businesses and households both in-town and rural. The survey results document West Point as an emerging information age community. However, it lacks an advanced telecommunications infrastructure. Community leaders are concerned that West Point may not be able to attract sources of economic development and worse yet, may risk losing what it already has.

It is strongly felt that the time has come to develop a strategic information technology plan that will help West Point remain economically viable and competitive in this new electronic era. Community leaders wish to have an IT plan in place within the year. They strongly feel a telecommunications development coordinator should be contracted to expedite the process of gathering additional information that will lead to a reasonable, affordable and implementable information technology plan. The NITC is being asked to support this project by providing funding for one year for a telecommunications development coordinator.

Comments: The needs assessment is very thorough and the application is well-written.

Project Title: Joint Emergency Management Information & Response System

Submitting Entity: City of Central City

Grant Amount Requested: \$ 19,516.80

Evaluation Score: 75

Executive Summary: The City of Central City, in conjunction with the Merrick County Sheriff and Emergency Management Office, the Central City Police Department; Central City Ambulance Department / Association; and the Central City / Rural Fire Department intends to demonstrate the viability of using the latest high speed, wireless technology to improve emergency management information and response time for emergency calls in the City and County. This will be accomplished by incorporating the latest information technology, including portable computer and high speed, broadband wireless equipment to access the Internet and the Global Positioning System network of satellites to create an "Emergency Management Information and Response System" for the City and County.

This system will interconnect Emergency Responders, both in the City and County, and allow them to remotely access and share emergency information via the Internet in order to assist them in rapidly and accurately responding to the emergency needs of the citizens. This system will help all of the emergency responders be more efficient in the utilization of their limited resources and provide the highest level of emergency service to the City and County. This robust system will provide a valuable information management tool, not only for day-to-day emergency and civil assistance missions, but will be an indispensable tool during any kind of disaster where rapid emergency response and accurate and timely emergency management information is absolutely critical.

Comments: This project could be considered a good pilot for evaluating the adequacy of the technology in meeting the described needs. The participants involved includes all the major local public safety agencies that serve the community and surrounding area. The match is only 20%.

Project Title: Mobile Computer Lab

Submitting Entity: University of Nebraska BKR Extension Service

Grant Amount Requested: \$25,000

Evaluation Score: 75

Executive Summary: The Community Technology Fund grant will be used to fund a mobile computer lab. With distance always being a factor in our rural area, our goal is to provide the equipment and training for residents to acquire technology skills at a location convenient to them, which in turn will create an awareness of opportunity for rural residents through technology information.

The project will consist of ten wireless laptop computers with a single access point. The partners included in this project are UNL BKR Extension, North Central Development Center, Northeast Community College, Educational Service Unit #17, Ainsworth Public Library, Long Pine Continuing Education Center and the area rural schools. The Rock Co. Library is also currently acquiring funds for a wireless lab so we are working together to purchase equipment that will be compatible so we are able to fully integrate our labs. Even though there are specific partners in this grant, the mobile lab is considered to be a project to be utilized by the entire community.

Project Title: Cheyenne County Community Portal

Submitting Entity: Cheyenne County Technology Committee

Grant Amount Requested: \$25,000

Evaluation Score: 74

Executive Summary: The Cheyenne County Community Portal project will be an Internet portal website that brings together resources from government, business and education to create a resource tool for the public. The intent of this portal is to consolidate the currently published sites and to augment them with access to additional interactive information and resources in Cheyenne County.

The portal will include content management software that allows contributors from government, business and education to submit and update material via a browser on the web with very little training, thus facilitating the contribution of content in an easy-to-use environment. With the software we have selected, contributors can be trained to publish content in as little as 30 minutes. The funds from this grant will be used to acquire the software needed, create the site content and produce the marketing materials to encourage contribution to, and use of, the site as an information resource for Cheyenne County.

Comments: This is an interesting project with evidence of strong community partnerships. The project includes making the catalogs of the libraries and student information from the school available online. These sub-projects should be better defined.

Project Title: Village of Hemingford Information Access Project

Name of Submitting Entity: Village of Hemingford and Hemingford Public Library

Grant Amount Requested: \$11,589.31

Evaluation Score: 72

Executive Summary: The goal of this project is to provide four computers, a high quality printer, and a hub for the library, a television and VCR for the library for use by all residents of Hemingford, and a computer for the Hemingford Community Care Center for use by assisted living residents. The computers at the library will be available for use by the general public, with one of the four computers dedicated to a planned Genealogy Center that is located in the library. All of the computers will contain small business software for use by small businesses in the area. The switch/hub will enable all four computers to use one common DSL line and to share the printer. The television will be used by general public to view the programs of their choice and to show educational videotapes owned by the library.

The computer to be housed at the Hemingford Community Care Center will be made available to the residents for e-mail and internet use. A goal of installing a computer at the care center is to initiate a program that will pair the residents of the care center with school age children who will act as instructors for the residents on the use of the new technology without feeling intimidated by it. It is the goal of the Hemingford Information Access Project to become a vital and useful tool for small business owners, young people and the elderly of the community.

Comments: This proposed project has a lot of different activities (business and software classes, geneology, story hour, senior-student mentoring.) Quite often one or more of these aspects are not addressed in the various sections. The DVD/VCR/TV fits with the goals of the Community Technology Fund.

Project Title: ROOTS (Rural Options and Opportunities for Technology)

Submitting Entity: Village of Holbrook

Grant Amount Requested: \$16,632.00

Evaluation Score: 72

Executive Summary: The Village of Holbrook in cooperation with GROW Nebraska and Central Plains Development Center will work to educate businesses and gift stores on e-business and the GROW Nebraska website. Our goal is to specifically target southwest Nebraska arts and crafts businesses who do not currently have a website. By educating these businesses we can open up a whole new economic market for these small businesses. This program is designed to help build and expand existing businesses, as well as help those looking to start their own business. These businesses in rural communities not only provide jobs for the immediate family, but often times for additional families throughout the community. Developing businesses savvy with regards to information technology on the web will provide economical marketing tools to build businesses and keep them abreast of the changing marketplace.

This grant will fund the development of marketing and technology workshops in SW Nebraska targeting technology and GROW Nebraska's website http://www.growneb.com/. Funding will go to build or integrate new websites for businesses and educate business owners on e-commerce. Nebraska gift stores will also be introduced to the GROW Nebraska website encouraging them to carry Nebraska products.

Comments: This is an interesting application. Working with clusters of industry-specific small businesses is an excellent way to help businesses understand how to utilize e-commerce. The sustainability of this project is a concern.

Project Title: Computer System for Sargent Township Library

Submitting Entity: Sargent Township Library

Grant Amount Requested: \$2865.10

Evaluation Score: 71

Executive Summary

Sargent community and surrounding communities need access to the information technology that is available through the use of computers and the internet. The purchase of a computer system, including hardware, software, printer, internet services, support forth software and training of personnel would provide many people the opportunity to access the information available to them. Currently there is no public access to this technology in the area served by the Sargent Township Library. It is our concern that the citizens in this rural area are falling behind in the technology and knowledge available to them, thus stunting economic growth.

Comments: This application is a request for a public access computer and is not really a project. The need for a public access computer is very strong.

Project Title: Internet Access to Public Services

Submitting Entity: The Perkins County Chamber of Commerce, with sponsorship by

the Perkins County Extension Agency, a tax supported entity.

Grant Amount Requested: \$6,070

Evaluation Score: 71

Executive Summary: Internet access to health, governmental, and public services is nearly non-existent in Perkins County. Because of this, the effectiveness of these services falls short. With the help of the NITC, web sites can be built to better serve the people who use these vital public services on a weekly basis. These web sites will help the citizens of the county by 1) educating them on the services offered in the county; 2) helping them to save time and money by being able to do some of their governmental and health care related activities from their homes; 3) allowing them a more convenient way to stay in touch with people that have a large effect on their lives, including governmental leaders and health care professionals; 4) inform them on important governmental activities that affect their lives, among others.

Comments: This project is requesting a small amount of funding.

Project Title: Plainview Community Connection

Submitting Entity: City of Plainview

Grant Amount Requested: \$20,540

Evaluation Score: 70

Executive Summary: The Plainview Telephone Company has taken the lead in ensuring the availability of information technology (IT) that allows such opportunities as distance learning, high-speed internet access, and digital, wireless communication services. However, the community as a whole has yet to appreciate fully and benefit from these IT resources. This can be primarily attributed to the lack of both knowledge and resources about what is available, how to access it, and how to use it. This is compounded by the fact that there is minimal public access to this technology for those interested in utilizing it. Finally, the public school system, which is charged with preparing youth for the IT future and providing these resources to them, is not adequately equipped to meet these needs. The purpose of this grant request is to provide the resources necessary to overcome the barriers which stand in the way of Plainview realizing the goal of becoming an "IT Ready" community.

The specific objectives to be achieved with these funds are as follows: 1) To enhance public Internet access by adding and upgrading computer equipment at the Plainview Public Library; 2) Network the public and school libraries so there is immediate knowledge regarding what resources are available in Plainview; 3) Wire the Plainview Community Room for Internet access; 4) Provide a computer to the Plainview Klown Doll Museum / Tourism Office / Chamber of Commerce Office; and, 5) Create a Plainview web page that will represent all aspects of the community, and keep it updated. Citizen education, both for the general public and community leaders, is critical to the success of this project, and this education component will be developed and provided through the project's partners.

Comments: This application contains many projects. Perhaps focusing on one or two aspects would have resulted in a stronger application. There is evidence of strong community partnerships.

Project Title: Elmwood-Murdock / Community Streaming Video Project

Submitting Entity: Elmwood-Murdock Public School

Grant Amount Requested: \$7,602.00

Evaluation Score: 69

Executive Summary: The Elmwood-Murdock Community Streaming Video Project is a project designed to help promote and stabilize the communities of Elmwood, Murdock, and the school district that resides in the towns. By the use of a streaming video website, we would promote the communities and "showcase" what the towns and the school district have to offer. Presently our communities and schools are at a stand still as far as population and school enrollment are concerned. With our proximity to such attractions as Mahoney State Park, Quarry Oaks Golf Club, Lincoln, Omaha, and Offutt Air Base the timing is right for community development and for future businesses to look to relocate to our communities.

The location of Elmwood and Murdock, only 25 miles from the two largest cities in the state of Nebraska (Omaha and Lincoln), makes it an outstanding choice for people who are interested in commuting to work or starting their own business. Presently we are lacking a method to promote our towns and school to potential residents who may be wanting to relocate to a smaller community. The methods that have been used have been mostly word of mouth. With streaming video, we would be able to create a website that would contain video of our communities, businesses that are offered, housing availiability, school information, tours of various historic sites that would enable a potential residents to actually take a tour of the town before they make their decision where they would want to move. For people who may not have access to a fast enough internet connection or who may lack an internet connection, we will be burning the website with the video onto CDs that can be mailed to people who request information about the communities.

Comments: Involving students in economic development projects is a good idea. A partnership with a local economic development organization would strengthen the proposal.

Project Title: City of Blair Geographic Information System (GIS)

Submitting Entity: City of Blair

Grant Amount Requested: \$25,000

Evaluation Score: 68

Executive Summary: The development of a GIS will enable the City of Blair to share information about its infrastructure, land ownership, city zoning, city council members, city's land use plan, location of schools and other public buildings within the city, US Census information, city council and board minutes and city code requirements with its citizens using the Internet. Our plan is to make the information available to the public via Internet through the city's Web site and thus making this information available during all hours of the day instead of the traditional city hall working hours. The city has retained a consultant to develop the GIS and link it to the city's Web page using ESRI's ArcIMS software.

Comments: The project concept is very commendable. If GIS is going to be utilized to it's full potential in Nebraska, projects such as this must be accomplished. Reviewers expressed some concerns about the implementation and longterm funding of the project.

Project Title: Rock County Regional Computer Education

Submitting Entity: Rock County High School

Grant Amount Requested: \$15,990

Evaluation Score: 68

Executive Summary: Schools and communities need access to current technology to keep abreast of updates and changes. The proposed Rock County Regional Computer Education plan would provide an updated computer lab for high school and community classes. These computers are utilized by Northeast Community College for continuing education classes in technology in addition to the Rock County High School computer classes. ESU 17 also uses this lab for student and teacher training. The computer lab currently has ten computers that the Northeast Community College uses for classes. This proposal will replace these ten, in addition to, the older ten machines to allow for larger numbers of students in computer classes. We are asking the NITC Community Technology Fund to provide funding to purchase ten computers and provide technical support for one day per week during the school year. The Rock County High School will purchase ten computers with matching funds.

Comments:The need for newer computers in Nebraska schools is high and well known. The fact that this is a VERY RURAL district and it is used by college for community classes is good. The fact that the school is willing to purchase 10 more new computers if very good. Still there is really no 'community' involment in this plan. The students and faculty will benefit and those taking college classes will benefit, but no specific 'project' is attempted

Project Title: Fillmore County GIS Program

Submitting Entity: Fillmore County

Grant Amount Requested: \$25,000

Evaluation Score: 67

Executive Summary: Fillmore County, located along expanding U.S. Highway 81, takes pride in its traditional, and yet at the same time innovative approach to the needs of its citizens. In September 2001 the 100-year-old courthouse was rededicated after a lengthy restoration, making it a truly historical building. At the same time, the Fillmore County Sheriff's Office was modernized to the point of making it one of the most secure correctional facilities in the state. Along these lines the county is dedicated to creating services that support the needs of both the private and public sectors of our community. Information technology is a great way of bringing both sectors of our community together for one common goal. To meet this goal it is important to provide resources that are easily accessible. Investments in the area of Information Technology are investments in the future of our community. It is the intention of Fillmore County to do all that we can to bring the information technology world to our local community.

To meet this goal Fillmore County has proposed a GIS program. One of the most important steps is to set up an accurate base map, which will provide county agencies and departments with the ability to make our county government more responsive to the public. In order to implement the base map, a GIS Program Coordinator must be hired & trained. A computer system with server, a GPS locator and software must be purchased.

Comments: The overall project is a good one. Reviewers expressed concerns that so much is riding on finding the key GIS Coordinator with the needed skills. Little in the way of resources for training and technical assistance is provided.

Project Title: Water Wonder Web

Submitting Entity: Educational Service Unit #16

Grant Amount Requested: \$25,000

Evaluation Score: 67

Executive Summary: This grant application seeks to create a web presence to promote the Nebraska Game and Parks Commission Visitors/Water Interpretive Center at the Lake McConaughey State Recreation Area through a school/community/state agency partnership. The interpretive center focuses on the importance of water and the Platte River System, and its critical role in Nebraska's past, present and future ecology and economy.

It is the vision of the grant applicants to create an interactive website informing the public about the center and to educate students prior to their visiting the center. Students enrolled in an advanced computer class at Ogallala High School will create an interactive website using Dreamweaver, Flash and Shockwave Macromedia softwares and multimedia computers. The website will provide online activities and information about the Water Center and its purpose, and will communicate science curriculum concepts.

Comments: This is a good project, but it doesn't fit very well with the CTF funding priorities.

Project Title: Pierce Public Library Community Technology Center

Submitting Entity: Pierce Public Library

Grant Amount Requested: \$22,500.00

Evaluation Score: 67

Executive Summary: The proposed project the Pierce Public Library is applying for is a Community Technology Center to be located within the new 6,500 sq. ft. library. Construction of the new library is planned to take place as soon as this spring. The facility will be fully operational by the fall or winter of 2002. The Community Technology Center located within the computer room of the new library will consist of a computer lab that contains ten workstations with high tech, state of the art equipment consisting of ten flat screen monitors, a wireless network card for each computer, a network color laser printer, three laptops, and educational software. In addition, all rooms within the new library will have wireless capability.

The Community Technology Center will be fully accessible to all patrons and citizens regardless of age or computer knowledge. As part of the project, library staff will help to provide the individuals with computer knowledge by providing computer classes which would consist of Introduction to Computers, Word Processing, Spreadsheets, Internet, Web Design, and any other classes that are requested by the public. Each class would range from one to four hours depending on the type of course offered.

Comments: Some sections could have been addressed more fully.

Project Title: Kearney County GIS

Submitting Entity: Kearney County Assessor Office

Grant Amount Requested: \$25,000.00

Evaluation Score: 67

Executive Summary: We are seeking funds from the Community Technology Fund 2002 to help implement a Geographic Information System (GIS) into our land valuation and assessment management schema. GIS is fast becoming an essential tool for property assessment and land evaluation. We want to implement a GIS that will link our Computer Aided Mass Appraisal (CAMA) data with a digital representation of our parcels. Once this link is established, we will then be able to quickly and accurately create new maps, query and analyze the CAMA data to reveal spatial trends and patterns, and plan for future changes in land valuations. This will eliminate costly updates to our current cadastral maps, as well as save time. In addition, the GIS base map will form the basis of other GIS and mapping projects amongst all county departments (surveyor, roads, weeds, sheriff, planning, deeds, engineering, treasurer, economic development and extension) and the City of Minden Public Works and Utilities Division.

Finally, by converting to a digital GIS, the information will be easier to provide to the public, and allow Kearney County to respond to questions concerning land valuation and assessment in a more timely and accurate manner.

Comments: Excellent goals and good objectives and some good vision relative to how one would go about the necessary coalition building, but reviewers expressed some concerns regarding the technical issues involved.

Project Title: Rural Nebraska Technology Lab-2002

Submitting Entity: Midland Area Agency on Aging-Webster County

Grant Amount Requested: \$17,950.00

Evaluation Score: 67

Executive Summary: The technology lab will benefit all age groups in our area. Access to computers, printers, scanners, copiers and digital cameras, along with training, will allow them to use this equipment and skills to better their lives. Our partnership with the Red Cloud FFA on this project will provide a mentor/teacher experience for our young people, that they are excited about, while they share their knowledge with others.

Many residents in our area have expressed a desire to search and document genealogy, with printed documentation and well as pictorial, for their sake and those of future generations, keep in contact with family members and friends via e-mail, access to the www informational highway, and to learn new skills that will enable them to seek a better employment or enhance the jobs they now perform. The technology lab will make all these needs and desires a reality.

Comments: Overall, this is a good project. There is a need for computer training in the area. There is evidence of community partnerships.

Project Title: Interactive Community Informational Kiosk

Name of Submitting Entity: City of Grand Island

Grant Amount Requested: \$25,000

Evaluation Score: 67

Executive Summary: This proposal is a request for funding to develop a public access, self-service, bilingual Kiosk, which dispenses information, services, and programs regarding municipal government in response to user input. The Kiosk will be designed to include Point-of-Information (POI), Point-of-Purchase (POP), and Internet capability. The Kiosk will be located in a northwest Grand Island retail outlet to provide convenient, coordinated, and centralized access to public information regarding the community and surrounding areas via computer. Grant funds will be used to design and purchase the Kiosk, to purchase, install and configure hardware and software, and to provide a power source and telephone line. Information will be available relative to City government, with links to other sites including: area communities, County, State and Federal entities, medical facilities, educational organizations, human service organizations, local business, and area attractions. Once implemented, the off-site computer will be connected to the City's web server and updated both remotely and simultaneously providing up-to-date information on a regular basis.

Comments: The application does a good job documenting the need for access to local government information.

Project Title: Sumner-Eddyville-Miller Library/Media/Technology Center

Submitting Entity: S-E-M Public School District #24-0101

Grant Amount Requested: \$25,000

Evaluation Score: 67

Executive Summary: Establishment of the Sumner-Eddyville-Miller Library/Media/Technology Center is a collaborative effort to provide public access to library resources, computers with Internet access and distance learning classes. The three villages of Sumner, Eddyville and Miller and surrounding rural areas comprise the boundaries of the SEM School district. Within this 260-mile geographic area, there is no public access library. This project would open the doors of the world to all citizens of these three communities by sharing the resources in the school library and distance education classroom.

The primary goal of the project is to provide training and education for the distance education classroom and computers and make current resources in the school library and on-line accessible to the patrons, young and old alike. The school has been progressively up-dating its information technology resources and has school improvement goals that direct the school to share those resources with the community.

Comments: This project would fill a large gap in providing information services to Nebraska citizens. None of these communities has a public library, and it makes economic sense to expand the use and services of existing school library/media centers in order to try to meet the general community need for access to information services. The applicant requests grant funding of \$5,000 for periodicals, and reference and library books. This is clearly an expenditure that is outside of the grant program's purpose.

Project Title: Upgrade circulation, provide internet access, and search stations

Submitting Entity: Village of Walthill - Walthill Public Library

Grant Amount Requested: \$25,000

Evaluation Score: 67

Executive Summary: The Walthill Public Library is the only public library on the Omaha Indian Reservation. The library is located in the village of Walthill on the reservation. The proposed technology upgrading of the library system would use technology to code the books as well as patron library cards. The library would be on line for the first time providing internet access to the public. Stations would be provided for students of the Nebraska Indian Community College, Omaha Nation Public School and Walthill Public School to use computers to do research, write papers, and learn to operate computers.

Collaborators for the project will be the Walthill Public School, Umoⁿhoⁿ Nation Public School, Project Washkoⁿ After School Program, Walthill Head Start Program, University of Nebraska Cooperative Extension, Citizens for a Safe Town, Little Priest Tribal College, and Umoⁿhoⁿ Tribe of Nebraska.

Comments: There is a great need for access to computers in the area. The project shows evidence of community partnerships.

Project Title: Building Community Development Partnerships Using Available

Local Distance Education Technology

Submitting Entity: College Park Consortium Partners/Cooperative Extension

Grant Amount Requested: \$25,000

Evaluation Score: 66

Executive Summary: The purpose of this project is to stimulate the use of locally based distance education technology for regional community development, government services as well as community education including health care. This will be accomplished by allowing facility resources at College Park to interconnect directly to more than 18 rural communities in Central Nebraska. By converting a 1 x 1 facility to also be a 1 x 3 facility the College Park resources and partners can better support communities in the Tri-Valley Distance Education Consortium and Central Nebraska Distance Education Consortium. This will make it possible to deliver Cooperative Extension programming, such as 4-H youth and adult learning activities, with limited technical support. This will also expand the community evening and weekend utilization of the distance education technology investments currently in place in regional high schools. It will encourage new partnerships to provide more educational opportunities for persons living in Central Nebraska. As gateway technology is enhanced, connections to other consortiums may be added.

Comments: This is a equipment upgrade request. While it has the potential to benefit the various communities there is no project(s) outlined that will directly help or benefit the various communities.

Project Title: Cedar Rapids Police Department On-line

Submitting Entity: Village of Cedar Rapids

Grant Amount Requested: \$2000

Evaluation Score: 65

Executive Summary: Cedar Rapids is in the process of restarting the Police Dept. after several years of working with the County Sheriff for protection. This means that we have to set up a system for files, reports, and communication. There is one computer in the City Hall that is used for all departments.

This grant will be used to purchase a computer system (complete with scanner, printer, digital camera, and Internet hookup) for exclusive use of the Police Dept. The Internet connection will also help with communication and filing of reports between the County Sheriff's office and the Village PD.

Comments: This is a small grant, limited in scope, that addresses a specific need in a small community.

Project Title: "The Technologically Empowered Elected Official"

Submitting Entity: Lower Platte North Natural Resources District

Grant Amount Requested: \$14,250

Evaluation Score: 65

Executive Summary: LPNNRD Directors will play a key role in helping facilitate and assist local communities and county governments with implementation of advanced communication technology. This will be done by first linking each of the LPNNRD's 19-Member Board to the District Office with laptop computers and modems. Our elected Board members will then become a vital link toward helping communities, rural people and other governmental partners. An example of technology that will be made available is the District's Geographic Information System (GIS) that combines digital information with geo-referenced mapping overlays This technology would also be available on each Director's laptop computer for helping communities and rural constituents in planning and implementing natural resource decisions. The available information include series of base maps with coverages that include counties, townships, sections, and major roads. Other tools and information available would include aerial photos, elevation models, soil type information, district water and soil program and project information and coverages.

This laptop technology will keep the most recent pertinent natural resources information in the hands of our elected officials. Using digital cameras, local governments and citizens, will be able to send photos of resource problems and concerns when working with their constituents between meetings. These photos will be geo-referenced to the GIS and information data bases.

Comments: While the project's goal of providing wider access to information related to NRD decision-making is understandable, the approach appears to be nothing more than providing laptops to board members. There is no clear indication that they will be used for purposes other than transferring board-related information, and other options exist (libraries & other public access points) for the general citizenry to gain access to the specified information.

Project Title: Sherman County Technology Grant

Submitting Entity: Sherman County

Grant Amount Requested: \$25,000.00

Evaluation Score: 64

Executive Summary: This project will enable Sherman County government to use technology to improve the efficiency of the government as well as making the county citizen-friendly. The goal is to allow all government offices to be networked together, creating an infrastructure within the courthouse building. To ensure the most efficient and cost effective use to the county, all hardware, software and other support needs will be networked together and have immediate Internet accessibility. Presently, most offices have computers and Internet access, however, they are using different dial-up Internet servers, which has proven to be very inefficient and costly, with on-line users tying up phone lines and resulting in several different monthly bills from Internet providers. Information cannot be shared among the different offices. Networking will allow this, resulting in greater efficiency among the offices.

This project will also be an education program to allow Sherman County government offices to establish a web site so that citizens can retrieve information such as minutes, board agendas, tax information, and valuation and also provide a resource directory of services available and enable citizens to contact government officials through e-mail.

Comments: The goal of networking the county offices and providing greater public access is admirable. Reviewers expressed some concerns regarding technical issues.

Project Title: Public Announcements Through Reading Information on the

Sign (PATRIOTS)

Submitting Entity: Adams Central School

Grant Amount Requested: \$19,600

Evaluation Score: 64

Executive Summary: The project will provide an improved and unique way of communicating to the students, staff, parents and public of the Adams Central School District. A programmable LED message center mounted on the school sign will provide accurate and timely announcements for the school and related activities. Additionally, it can be used for public service messages prior to major events e.g. "Don't Drink and Drive" before prom. By incorporating programming of the sign into a class curriculum it will provide the Senior Computer Programming and Application class an ongoing project that will allow them to express their creativity and yet provide a public service.

Comments: This project does not strongly support the Community Technology Fund priorities.

Project Title: Cordova Technology Enhancement

Submitting Entity: Village of Cordova

Grant Amount Requested: \$9,700.00

Evaluation Score: 61

Executive Summary: At present, the Village has limited Internet access through analog phone lines that are designed for voice communications, not high-speed data transfer. This project will enable the Village of Cordova, the farmers, ranchers, and other businesses in the surrounding area, to participate on a level playing field in an increasingly more diverse International economy in spite of their physical location. The Information Age is producing a new and exciting economic challenge for the smaller communities of rural Nebraska. It is essential that the Village Board take a lead role in putting into action a plan to bring Digital High-Speed Broadband Internet service to a rural community with limited resources.

The proposed Cordova Technology Enhancement Program would provide the chance for the community to successfully address Technology improvements that are essential in our rural area for improving the quality of life, enhancing educational opportunities and encouraging economic development. This will also enhance the communication among the Village departments, council members, and citizens of Cordova through the e-mail system and a Village bulletin board. It will also provide a resource information bank of services available and allow citizens to contact government officials through the e-mail.

Comments: This application appears to have been written by vendors, not the community. There is little commitment by the community. The application did not fully address several issues.

Project Title: Hampton Technology Program

Submitting Entity: City of Hampton

Grant Amount Requested: \$9,775.00

Evaluation Score: 61

Executive Summary: The Information Age is bringing new and exciting economic challenges to the smaller communities of rural Nebraska. This project will enable the City of Hampton, farmers, and other businesses in the surrounding area, to compete on a level playing field in an increasingly diverse International economy regardless of their geographic location. This can be accomplished by installing an access point for Digital Broadband High Speed Internet Service. In a rural community with limited resources, it is imperative that the City of Hampton takes a lead role in implementing a plan to bring an access point to our community for adequate Internet service.

The Internet is no different than any other tool. If you don't have the best tools available, your business and community will eventually suffer the consequences. Wireless technology is the answer to providing the best tool for access to the Internet in rural areas such as Hamilton County. It will help create new technology based businesses and provide existing businesses the ability to access global markets and resources. Presently, the City has limited Internet access through phone lines designed for voice communications, not high-speed data transfer. This method has proven to be very inefficient and costly.

Comments: This application appears to have been written by vendors, not the community. There is little commitment by the community. The application did not fully address several issues.

Project Title: Rising City Leading Edge Information Program

Submitting Entity: Village of Rising City

Grant Amount Requested: \$8,800.00

Evaluation Score: 61

Executive Summary: The Village of Rising City will be able to use the leading edge of technology to improve the efficiency of the Village as well as making the rural farms and ranches computer-friendly. It will also help develop our business community with the ability to access the World Markets. The Village would accomplish this by installing a Digital Broadband Internet Service Backbone.

This project will enable the Village of Rising City, the farmers, ranchers, and other businesses in the surrounding area, to participate on a level playing field in a progressively more different International economy in spite of their geographic location. The proposed Rising City Leading Edge Information Program would provide the chance for the community to successfully address Technology improvements that are essential in our rural area for improving the quality of life, enhancing educational opportunities and encouraging economic development. This will also enhance the communication among the Village departments, council members, and citizens of Rising City through the e-mail system and a Village bulletin board. It will also provide a resource information bank of services available and allow citizens to contact government officials through the e-mail.

Comments: This application appears to have been written by vendors, not the community. There is little commitment by the community. The application did not fully address several issues.

Project Title: Enhancing Access to Quality Health Care Education

Submitting Entity: Central Community College

Grant Amount Requested: \$25,000

Evaluation Score: 61

Executive Summary: A shortage of qualified health care professionals grows larger with each passing year for rural Nebraska. Currently, a 20% - 25% shortage nursing shortage exists in Nebraska hospitals. In order to reverse this trend, three organizations, Central Community College, St. Francis Medical Center, and the Central Nebraska Area Health Education Center are working together to identify innovative uses of technology to "grow their own" health care professionals within the region.

This request will seek funding to determine the greatest need for healthcare professionals, aid in interconnecting hospital facilities with K-12 schools and colleges within the area, and provide professional development money to adapt curriculum utilizing technology to reach students located within Central Nebraska.

Comments: This project is minimally defined. With more specificity, this would probably be a good project.

Project Title: Benedict Community Technology Program

Submitting Entity: Village of Benedict

Grant Amount Requested: \$9,975.00

Evaluation Score: 61

Executive Summary: This project will enable the Village of Benedict, farmers, ranchers, and other businesses in the surrounding area, to participate on a level playing field in a progressively more different International economy in spite of their geographic location.

The proposed Benedict Community Technology Program would provide the chance for the community to successfully address Technology improvements that are essential in our rural area for improving the quality of life, enhancing educational opportunities and encouraging economic development. This will also enhance the communication among the Village departments, council members, and citizens of Benedict through the e-mail system and a Village bulletin board. It will also provide a resource information bank of services available and allow citizens to contact government officials through the e-mail.

Comments: This application appears to have been written by vendors, not the community. There is little commitment by the community. The application did not fully address several issues.

Project Title: BYTE Business, Youth, Technology & Education

Submitting Entity: ESU 4

Grant Amount Requested: \$25,000.00

Evaluation Score: 61

Executive Summary: B.Y.T.E., Business, Youth, Technology, and Education, is a project that will infuse the use of Information Technology into local businesses and schools. Community businesses will mentor youths from the two Nemaha County K-12 school districts in the aspects of running a rural business, and the students will assist companies in learning Information Technology skills that can enhance their business.

The primary technology used will be Personal Digital Assistants (PDA's). PDA's are fast becoming an integral part of commerce throughout the world. PDA's will be purchased for the schools and the mentoring businesses and will be the primary tool by which information is shared between mentors and students. This information can be in the form of text, spreadsheets, databases, pictures, web pages, etc.

Comments: The concept for this project has merit; that of high school students mentoring businesspersons. PDAs are useful, but are just one aspect of a business's information technology needs.

Project Title: Get Fluent in Information Technology – "Get FIT" Project

Submitting Entity: Mid-Plains Community College Area

Grant Amount Requested: \$24,500

Evaluation Score: 61

The Applied Information Management (AIM) Institute, in partnership with Mid-Plains Community College Area and the four other Nebraska community colleges serving rural Nebraska (Central Community College, Northeast Community College, Southeast Community College, and Western Nebraska Community College), is proposing to create and implement the Get Fluent in Information Technology Project (Get FIT Project). The Get FIT Project is designed to identify the technology skill levels of people of all ages living in Nebraska's rural communities and to match them up with appropriate training opportunities in their communities, including at their local area community colleges. The project will assess the technology literacy of the residents in select rural communities, identify the skills gaps and the training needed by the target individuals to become "Fluent in Information Technology" – FIT – so that they can create new business opportunities that are competitive in the global economy and qualify for the new jobs of the 21st Century workplace.

Comments: This is an interesting and worthwhile project. However, some of aspects of this project are being undertaken by the Technologies Across Nebraska initiative. The technical impact section was not completed which lowered this project's score.

Project Title: Polk Technology Program

Submitting Entity: Village of Polk

Grant Amount Requested: \$9,675.00

Evaluation Score: 60

Executive Summary: The proposed Polk Technology Program would provide the opportunity for the community to effectively address IT enhancements that are necessary in our rural area for improving the quality of life, enhancing educational opportunities and encouraging economic development. This will also enhance the communication among the Village departments, council members, and citizens of Polk through a Village e-mail system and Village bulletin board. It will also provide a resource directory of services available and enable citizens to contact government officials through e-mail.

Comments: This application appears to have been written by vendors, not the community. There is little commitment by the community. The application did not fully address several issues.

Project Title: 21st Century Interactive Learning Facility

Submitting Entity: University of Nebraska, Platte County Extension

Grant Amount Requested: \$25,000

Evaluation Score: 60

Executive Summary: This proposal indicates that with the use of collaborations, including the University of Nebraska, a 21st century Extension learning center will be built in Platte County. There would be two important outcomes from the project. The first is that the people in the Platte Valley would be served better with a facility that provides cutting-edge education and information. Secondly, the design concepts and the model developed would be replicated to other Extension Offices across the state.

The Platte County Extension Learning Center is an outstanding example of a project being proposed at the right time for the right reasons. Developing and crafting the 'new look' extension learning center in Columbus is doing the right thing for the future of Extension and for the future of the citizens in the Platte Valley.

Comments: The application requests funding for equipment before the facility has been designed and funded. The timeframe for construction extends outside the one-year grant program. With additional information on needs of users and the development of local partnerships, this project could be a strong contender for a future round.

Project Title: Customer Communication Inter-Active Link

Submitting Entity: Little Blue Natural Resources District

Grant Amount Requested: \$24,520

Evaluation Score: 58

Executive Summary: This project will provide instant access to information for agencies, schools, libraries and individuals in twenty-seven communities and seven counties. It will also enable on-line reporting and on-line forms that can be completed for the various applications for the programs provided by our agency. It would also enable producers to complete the mandatory operator training for the sub-areas online.

This information will be entered directly into each respective database, which will alleviate many hours of employee labor that was previously required to enter this data and provide feedback in a timely fashion. This project will enable us to better educate the public and make them more aware of the practices we have available and promote conserving our natural resources.

Comments: This project is a good idea. However, some sections were not thoroughly addressed.

Project Title: Osmond's Technology 2002 Project

Submitting Entity: City of Osmond

Grant Amount Requested: \$8,875

Evaluation Score: 58

Executive Summary: The City of Osmond's Technology 2002 Project is a collaborative effort between private and public entities that will bring the City into the new information technology age. The project provides for the development and introduction of computer technology in the delivery of local government services, thereby, better addressing community needs. The City plans to renovate a former library building and create the "Osmond City Offices," something the community has never had. Staff currently utilize their own equipment, do not have Internet access, and utility fee collections is outsourced as the City does not have adequate space for staff.

With the exception of City Offices, the community of Osmond is progressive, and it experienced an increase in population over the past decade. Current economic and community development activities include the development of a comprehensive development plan, a housing rehabilitation project, and private sector multi-family housing projects. Osmond has also been instrumental in helping secure the site between Plainview and Osmond for the new ethanol plant that is being constructed there. All the attention and energy Osmond has been putting into community betterment has been the impetus for the leadership's position that the City must now focus on itself. The technology requested in the proposal includes 3 computers/printers, a new phone system, fax machine and relevant software.

Comments: There is a substantial need for this project.

Project Title: Problem Resolution Team Shared Database

Submitting Entity: City of Omaha, Problem Resolution Team

Grant Amount Requested: \$25,000

Evaluation Score: 58

Executive Summary: Local government entities have shown an increase need to interact and effectively communicate information through technological mediums. The recommended establishment of a shared electronic database for the City of Omaha, to be implemented by the Omaha Problem Resolution Team (PRT), will increase the ability of public safety entities and citizens to access crucial information relating to public safety (i.e. housing code, health and human services violation, etc.)

Grant funding will enable the Problem Resolution Team (PRT) to purchase a computer, scanner, printer, digital camera, projector and establish a shared electronic database. The shared electronic database will be linked to the City of Omaha Internet web page. This will allow all partner agencies and the general public to track information and actions taken concerning properties that are being monitored by the PRT.

Comments: More detailed information is needed—especially regarding the technical impact.

Project Title: Globalize Plattsmouth

Name of Submitting Entity: City of Plattsmouth, Plattsmouth Public Library, Plattsmouth Main Street Association (Economic Restructuring Committee), Plattsmouth Chamber of Commerce, and Cass County Tourism.

Grant Amount Requested: \$12,500.00

Evaluation Score: 52

Executive Summary: The new partnerships that have developed over the past year between the city, library, Plattsmouth Main Street Association, Chamber of Commerce, and the Cass County Tourism has culminated in these community goals: economic development, education of technology and what it can do for business, and to enhance the quality of life within our community with new economic growth.

Our project is to develop a comprehensive IT plan to connect the community and world with Plattsmouth. The IT program will provide ready access to city government and all its entities, make available the contents of the library, provide a community bulletin board, provide an E-commerce system for business at a reasonable cost to educate and help develop E-commerce one business at a time with knowledgeable expertise.

Comments: Much more thought regarding specific goals, objectives, and outcomes needs to be done.

Project Title: Computer Training Lab & Training Resources

Submitting Entity: Grand Island Veterans Home

Grant Amount Requested: \$25,000.00

Evaluation Score: 52

Executive Summary: A Computer Training Lab at the Grand Island Veterans Home will provide residents with increased opportunities to improve their Internet skills in locating information of interest to them and performing genealogy research as well as improve their e-mail skills to communicate with their fellow comrades and families. They will also learn to produce flyers, banners and greeting cards to share with families and friends. The computer training lab at the Grand Island Veterans Home will provide increased opportunities for staff to learn the Internet, Lotus Notes e-mail, Microsoft Office products, and resident care computer applications which will improve their efficiency and effectiveness in providing quality health care to our residents. Staff proficiency in using the Internet and e-mail will facilitate increased communication and collaboration with professional resources across the state in the provision of services to the residents of the Grand Island Veterans Home community.

This computer training lab will also serve as a regional training lab for other HHSS staff on their respective applications such as N-Focus, as well as Lotus Notes e-mail and Microsoft Office Products. The Grand Island Veterans Home will be collaborating with the Health and Human Services Human Resources Development Staff to provide opportunities for computer training to all central Nebraska HHSS staff.

Comments: This project only weakly supports the funding priorities. Its main emphasis is on training HHS employees, rather than providing access for residents.

Project Title: Wireless Computer Lab for Educational Purposes

Submitting Entity: University of Nebraska Cooperative Extension--Douglas/Sarpy

County

Grant Amount Requested: \$23,102

Evaluation Score: 48

Executive Summary: One goal of the University of Nebraska Cooperative Extension in Douglas/Sarpy Counties is to provide education in multiple varied settings. Specifically the 4-H youth development program targets youth in schools with science based curricula.

Adding a wireless computer lab will enable extension to expand our youth outreach program and the science curricula offered. In addition, extension will develop applications for other subject areas and/or audiences. The grant will be used to purchase a wireless lab network.

Comments: This project is framed as a request for equipment rather than a project. More specific information on programming to be delivered is needed.

Project Title: Jackson Community Technology Center

Submitting Entity: Jackson Public School

Grant Amount Requested: \$18,362

Evaluation Score: 46

Executive Summary: Technology is ever changing, and traditionally, changes at a faster pace than many other commodities. Because of technology's rapid advancements and high capital costs, it is difficult for public communities and their respective entities to adapt, educate and acquire the tools necessary. Specifically, the school of Jackson Nebraska suffered a natural disaster during the summer of 2001. The natural disaster destroyed the physical school building and much of its information technology infrastructure: cables, network equipment, computer systems and software. While most of the equipment is salvageable and covered by insurance, much of it needs to be updated so as to support the new school and its proposed community center for computing.

The recent months have proved to be a slow advancement period for the technology sector. The grant funds requested shall be used to take advantage of this slowing technology sector by acquiring cables, network equipment, computer systems and software at a relatively reasonable cost, adequately equipping the new school and community center for computing. The assets acquired using the requested grant funds shall benefit the students and community of Jackson Nebraska by providing a rejuvenated information technology infrastructure that is most productive for learning and gaining the technology skills necessary for today's information age.

Comments: This application is a request for equipment and not really a project. Many sections are not fully addressed.

Project Title: City of Hastings IT Audit & Web Redesign

Submitting Entity: City of Hastings

Grant Amount Requested: \$25,000

Evaluation Score: 36

Executive Summary: Internet use in the home continues to increase every year. According to the U.S. Census Department Special Studies Report issued in September 2001 entitled "Home Computers and Internet Use in the United States August 2000" more than 51% of U.S. households had computers in their home and 41.5% had Internet access. The necessity for city government to provide electronic information and access to their services electronically becomes more essential every day.

This project would engage a consultant to evaluate the current IT capabilities of the Hastings City government infrastructure, design a wide area network, recommend WAN implementation plan and necessary hardware and software, and redesign the City's web site as a citizen-concentric portal.

Comments: Reviewers raised questions about the proposed project's implementation plan and technical impact. The applicant is requesting \$5,000 in software, yet no information is given on this in the technical impact section.

Community Council Member Renewal

Gary Warren

Hamilton Communications and Aurora Information Technology Committee

Max Thacker

University of Nebraska Medical Center, Omaha

Donna Hammack

St. Elizabeth Foundation, Lincoln

Chris Anderson

City of Ashland

Ron Heezen

Omaha Public Library

Building Information Age Communities Conference April 12, 2002 Aurora, Nebraska

Evaluation Summary

- Approximately 135 individuals from 43 Nebraska communities participated in the conference.
- Ninety-six percent of the participants indicated that attending the conference helped them understand the importance of IT-related community and economic development.
- Ninety-one percent of the participants indicated that attending the conference helped them understand how to begin incorporating information technology into local community and economic development processes.
- Eighty-eight percent of the participants indicated that attending the conference helped them learn about available resources.
- Ninety-two percent of the participants indicated that attending the conference enabled them to meet and learn from community leaders from other communities.
- Ninety percent of the participants agreed that attending this conference was worthwhile.
- On a scale of one to five with five being excellent, the overall conference received a rating of 4.4. The ratings of individual sessions ranged from 3.8 to 4.5.

Technologies Across Nebraska Action Plan

(Date of Last Revision: March 20, 2002)

Goal

To provide a sustained source of information, training and educational opportunities to enable Nebraska communities, citizens and businesses to make informed decisions regarding information technology.

Within two years, it is critical that as many Nebraska communities as possible have been engaged in a decision making process to insure their citizens have access to and are able to use the current information technology to enhance their businesses and quality of life.

Mission

Technologies Across Nebraska (TAN) is an initiative led by University of Nebraska Cooperative Extension to create awareness and provide education to support communities as they make decisions regarding their future use of information technology. The initiative will provide a network of expertise to assist communities in locating current information on infrastructure, policy and education and training issues and opportunities. Over forty entities are involved in a Technologies Partnership. This group of organizations, agencies and education systems are working cooperatively to help communities create awareness of, access to and ability for use of information technologies.

Expected Outcomes

- Communities in Nebraska will make progress toward becoming Information Age communities;
- Communities will have easy access to information and resources to assist them in developing their capacity to use information technology for community and economic development;
- State agencies, education institutions, and other entities with responsibilities in the area of community and economic development will coordinate and collaborate to leverage available resources and maximize benefits.

Strategies Underway or Already Accomplished

Coalition Building

 Develop a coalition of policy makers and organizations with an interest in information technology development in Nebraska's communities.

Status: Ongoing

Meet in other locations to promote interest.

Status: Summer meeting will be held outside of Lincoln.

Information/Resource Development

• Develop a community IT toolkit, drawing upon resources available through the Extension programs of other states.

Status: Ongoing. Health Section is almost developed. A local government section needs to be developed.

Community Outreach

 Create awareness in communities of the importance of information technology by developing a speaker's bureau and by other methods.

Status: Ongoing

• Write a NITC Community Technology Fund grant application for community surveys. **Status:** Application was submitted on Feb. 15, 2002.

Host a conference on IT planning and development.

Status: Conference was held April 12, 2002 in Aurora, Nebraska.

Priorities for Next Year (March, 2002- March, 2003)

Information/Resource Development

 Inventory what activities TAN partners are planning regarding information technology development in the next year and make this information.

Lead: University of Nebraska

Timeframe: Inventory forms will be distributed at the March, 2002 Technologies Across Nebraska Meeting.

 Identify gaps in the information and resources that are available to assist communities.

Lead: NITC

Timeframe: Initial gap analysis will be completed by August 30, 2002.

Community Outreach

Promote information exchange and mentoring among communities.

Lead: NITC, RDC, and University of Nebraska

Timeframe: Starting February, 2002

Action Steps:

- 1. Establish links to community IT committees using the information collected by the Rural Development Commission. The NITC sent an e-mail to community IT contacts inviting them to conference.
- 2, Develop an e-mail discussion list. The NITC has worked with NOL to set up a discussion list. The list will become active by April 30.
- 3. The RDC and the University of Nebraska will work together to set up regional meetings of IT committees.
- Pilot toolkit materials by working with at least 8 communities to develop community or regional IT plans.

Lead: University of Nebraska, RDC (and the Nebraska Development Network), and NITC

Timeframe: Beginning May, 2002

Action Steps:

- 1. Select pilot communities after April 12 conference.
- 2. Develop regional resource teams with representatives from University of Nebraska Extension, community colleges, telecommunications professionals, and other resource providers.

Biography: George Mihel

Background

- Born and raised in Chicago
- Parents owned a "Mom & Pop" grocery store
- First member of family to graduate from college
- Attended the university of Illinois where received a B.S. in mathematics (1970)
- Taught secondary math and science for eight years in Illinois
- Received M.S. (1972) and Doctorate (1988) degree in education from Northern Illinois University
- Taught undergraduate and graduate education courses in Oregon
- Has been in college administration since 1982 in Illinois, Michigan, and Colorado
- Came to Nebraska as President of Mid-Plains Community College Area in July, 1998

Personal

- Born in 1947
- Married to Sherry since 1980
- Children Abigail (born 1984) and Andrew (born 1986)
- Hobbies licensed pilot since 1972, woodworking, and cooking

Nebraska Information Technology Commission

-- Technical Panel Charter--

(Last Revised: August 30, 1999 March 5, 2002)

1. Introduction

The Technical Panel was created by LB 924 in 1998 as an advisory body to the Nebraska Information Technology Commission (hereafter referred to as "Commission").

2. Purpose

The purpose of this charter is to provide operational guidance to the Technical Panel members, clarify its relationship to the Commission, and to provide general information to all who read the proceedings and recommendations of the Technical Panel.

3. Authority

The Technical Panel of the Nebraska Information Technology Commission is codified at Neb. Rev. Stat. § 86-1511. Section 86-1511(2) provides:

The technical panel shall review any technology project or request for additional funding recommended to the Nebraska Information Technology Commission including any recommendations by working groups established under sections 86-1501 to 86-1514. Upon the conclusion of the review of a technology project or request for additional funding, the technical panel shall provide its analysis to the Nebraska Information Technology Commission. The technical panel may recommend technical standards and guidelines to be considered for adoption by the commission.

4. Commission Mission and Responsibilities (NEB. REV. STAT. § 86-1506)

4.1 Commission Mission

"The mission of the Nebraska Information Technology Commission is to make the State of Nebraska's investment in information technology infrastructure more accessible and responsive to the needs of its citizens regardless of location while making government, education, health care and other services more efficient and cost effective." http://www.nitc.state.ne.us/

4.2 Commission Responsibilities:

- 4.2.1 Adopt policies and procedures used to develop, review, and annually update a statewide technology plan;
- 4.2.2 Create a technology information clearinghouse to identify and share best practices and new developments, as well as identify existing problems and deficiencies;
- 4.2.3 Review and adopt policies to provide incentives for investments in information technology infrastructure services;
- 4.2.4 Determine a broad strategy and objectives for developing and sustaining information technology development in Nebraska, including long-range funding strategies, research and development investment, support and maintenance requirements, and system usage and assessment guidelines;
- 4.2.5 Adopt guidelines regarding project planning and management, information sharing, and administrative and technical review procedures involving state owned or state supported technology and infrastructure. Governmental entities, state agencies, and political subdivisions shall submit projects that directly utilize state appropriated funds for information technology purposes to the process established by NEB. REV. STAT. §§86-1501 to 86-1514. Governmental entities and political subdivisions may submit other projects involving information technology to the Commission for comment, review, and recommendations;
- 4.2.6 Adopt minimum technical standards, guidelines, and architectures upon recommendation by the technical panel created in NEB. REV. STAT. §86-1511;
- 4.2.7 Establish ad hoc technical advisory groups to study and make recommendations on specific topics, including work groups to establish, coordinate, and prioritize needs for education, local communities, and state agencies;
- 4.2.8 Make recommendations on technology investments to the Governor and the Legislature, including a prioritized list of projects, reviewed by the technical panel, for which new or additional funding is requested;
- 4.2.9 Approve grants from the Community Technology Fund and Government Technology Collaboration Fund; and
- 4.2.10 Adopt schedules and procedures for reporting needs, priorities, and recommended projects.

5. Technical Panel Mission and Responsibilities

5.1 Technical Panel Mission

The mission of the Technical Panel is to assist in the development of a statewide

technical infrastructure that will be scalable, reliable, and efficient.

5.2 Technical Panel Responsibilities

- 5.2.1 Assist the Commission in developing, reviewing, and updating the statewide technology plan;
- 5.2.2 Review any technology project or request for additional funding recommended to the Commission including any recommendations by working groups established by the Commission;
- 5.2.3 Recommend technical standards and guidelines to be considered for adoption by the Commission;
- 5.2.4 Review requests for funding from the Community Technology Fund, the Government Technology Collaboration Fund, and other requests for funding for technology projects as directed by the Commission; and
- 5.2.5 Such other responsibilities as directed by the Commission.

6. Membership

6.1 Number of Members

The Technical Panel may include but not be limited to five seven members, and alternates, as approved by the Commission.

6.2 Representation (One representative from each)

- 6.2.1 One representative from the Nebraska Educational Telecommunications Commission;
- 6.2.2 One representative from the Department of Administrative Services;
- 6.2.3 One representative from the University of Nebraska Computing Services Network;
- 6.2.4 State of Nebraska Chief Information Officer;
- 6.2.5 Executive Director of the Commission; and
- 6.2.6 One member with expertise in assistive technology;
- 6.2.7 One member representing K-12 education; and
- 6.2.86 Other membership as required or specified by the Commission.

6.3 Change in Membership

If a change in membership becomes necessary due to resignation, removal, or change of job status, the agency represented is responsible for nominating or recommending the replacement member to the Technical Panel.

7. Meeting Procedures

7.1 Chair(s)

7.1.1 A Chair, elected by the members, will conduct the meetings of the Technical Panel, oversee the establishment, operation and dissolution of committees, propose meeting agendas, and maintain the general operations of the Panel.

7.1.2 The Chair of the Technical Panel will serve until January 1, 2001; with subsequent one-year elected terms expiring on January 1 of each year.

7.2 Quorum and Action Items

An official quorum consists of at least 50% of the members or their alternates. No official voting business may be conducted without an official quorum. Issues shall be decided by a majority vote of the members present.

7.3 Designated Alternates and Non-voting Alternates

Each member of the Technical Panel shall designate one (1) official alternate to be approved by the Commission. This official voting alternate shall be registered with the Office of the Chief Information Officer and NITC and, in the absence of the official member, have all the privileges as the official member on items of discussion and voting.

7.4 Meeting Frequency

The Technical Panel shall meet not fewer than four times per year (quarterly).

7.5 Open Meeting Laws and Public Notice

7.5.1 Advance Notice

The Technical Panel shall give reasonable advance publicized notice of the time, place, and agenda of each meeting through the use of its web page, http://www.nitc.state.ne.us/. The agenda will also be available for public inspection during normal business hours at the Office of the CIO-NITC, 521 S. 14th, Suite 200, Lincoln, Nebraska.

7.5.2 Minutes and Voting

The Technical Panel shall keep minutes of all meetings showing the time, place, members present and absent and the substance of all matters

discussed. Any action taken on any question or motion duly moved and seconded shall be by roll call vote of the Technical Panel in open session, and the record shall state how each member voted or if the member was absent or not voting. The roll call shall be called on a rotational basis. Minutes shall be written and available for inspection within ten working days or prior to the next convened meeting, whichever occurs earlier.

Approved by the NITC on August 30, 1999. Amendments approved by the NITC on XXX.

Lance C. Perez

Assistant Professor



243N Walter Scott Engineering Center Lincoln, NE 68588-0511 (402) 472-6258 Office (402) 472-4732 Fax

email: mailto:"lperez@unlinfo.unl.edu"

Course Information

Spring 2002

ELEC 952 Mobile Communications

Biographical Information:

- Ph.D., University of Notre Dame, South Bend, Indiana, 1995
- M.S., University of Notre Dame, South Bend, Indiana 1989
- B.S., University of Virginia, Charlottesville, Virginia 1987

After receiving his doctorate from the University of Notre Dame, Dr. Perez was a postdoctoral fellow with a joint appointment from the University of Notre Dame and the Swiss Federal Institute of Technology, Zurich, Switzerland. In August of 1995, he accepted a position as a visiting assistant professor with the Division of Engineering at the University of Texas at San Antonio. He joined the faculty in the Department of Electrical Engineering at the University of Nebraska in August of 1996.

Research Interests:

Lance Perez's research background is in the area of channel coding. He continues to work in this area with emphasis on time-varying codes and turbo codes and their application to space and satellite communication systems. He also conducts research into the joint detection of multiple users in wireless and cellular communication systems. This is a joint project with Dr. Christian B. Schlegel of the <u>University of Utah</u>. General research interests include information theory, communication theory, signal processing and algebraic system theory.

Dr. Perez heads the Mobile Communications and Coding (MC²) Laboratory.

Current Research Projects:

- An Integrated Signals and Systems Laboratory Experience at the University of Nebraska, National Science Foundation, Division of Undergraduate Education, Course, Curriculum and Laboratory Improvement Program, Adaptation and Implementation track January 1, 2002 to December 31, 2004, \$199,674.
- Channel Coding for Satellite and Mobile Communications, National Science Foundation CAREER Award,

July 15, 1999 to June 30, 2003, \$210,000.

- Robust Mobile Multimedia Communications, AFOSR, January 1, 2000 to December 31, 2003, \$180,000.
- *Mobile Communications Research Project*, Nebraska Research Initiative, July 1, 1998 to June 30, 2003, \$500,000.

Selected Publications:

- D. Leon, S. Balkir, M. Hoffman, and L. C. Perez, "Fully Programmable, Scalable Chaos Based PN Sequence Generation", *IEE Electronics Letters*, vol. 36, no. 16, pp. 1371-1372, 3 August 2000. (chaos.IEE00.pdf)
- C. B. Schlegel and L. C. Perez, "On error bounds and turbo codes", *IEEE Communications Letters*, vol. 3, no. 7, pp. 205-207, July 1999.
- L. C. Perez, J. Seghers, and D. J. Costello, Jr., "A distance spectrum interpretation of turbo codes", *IEEE Transactions on Information Theory*, Vol. 42, pp. 1698-1709, Part I, Nov. 1996. (paper.it95.pdf)
 To download the technical report referred to in this paper in pdf format click here)
- S. S. Pietrobon, G. Ungerboeck, L. C. Perez, and D. J. Costello, Jr., "Rotationally Invariant Nonlinear Trellis Codes for Two-Dimensional Modulation," IEEE Trans. Inform. Theory, IT-40, pp. 1773-1791, November 1994.

Family Photos

Click here for family photos!

Go to the faculty list, or to the EE Electrical Engineering Home Page.

Kirk Langer is in his eighth year as the Internet Services Manager for the Lincoln Public Schools and ESU 18. In this capacity he oversees the delivery and support of core Internet services including DNS, electronic mail and remote access to the district's network. Additionally, he coordinates the development of the district's web presence including the training of teachers and technology coordinators working on web development projects with students. Kirk earned a BA in Psychology with highest distinction from the University of Nebraska, Lincoln.

Ron Cone Network Engineer, CCNA Educational Service Unit 10 308.865.5664 x264 rcone@esu10.org

Education:

Bachelor of Science in Business Administration and Computer Science and Information Systems from the University of Nebraska at Kearney – 1994

Associate of Arts in Business Administration from Central Christian College, McPherson, KS –

Work Experience:

Network Engineer - Educational Service Unit 10, Kearney, NE 1997-present
Wide Area Network administration, installation, and consulting
Local Area Network administration and consulting
Cisco Network Academy Instructor
Technical support for TRI-Valley Distance Education Consortium UNIX system
administration

Telecommunications Coordinator - Educational Service Unit 7, Columbus, NE – 1996-1997

DEC UNIX system administration

Local Area Network administration and consulting

Wide Area Network administration, installation, and consulting

Programmer - Appleton Electric, Columbus, NE – 1995-1996
Programming with Pascal on inventory systems
Network support of AS/400 and token-ring environment
Novell server support and administration

Other Related Experiences:

Served as chair for the Educational Service Units Professional Development Organization, Network Operation Committee Affiliate (ESUPDO/NOC)

Participated in NETCOM Technical Review Panel in designing the request for proposal (RFP) and evaluating the vendor responses

Installed voice and fax over IP solution for TRI-Valley Distance Education Consortium
Designed and maintain wide area network connections, including Internet access for ESU 10
Currently Certified Cisco Networking Associate (CCNA) and working toward Certified Cisco
Networking Professional (CCNP)

NITC Vision, Goals and Objectives

(Date of Last Revision: April 22, 2002)

NITC Vision Statement (Unchanged)

"Promote the use of information technology in education, health care, economic development, and all levels of government services to improve the quality of life of all Nebraskans."

NITC Mission Statementm (Changed)

"The mission of the Nebraska Information Technology Commission is to make the State of Nebraska's information technology infrastructure more accessible and responsive to the needs of its citizens, regardless of location, while making investments in government, education, health care and other services more efficient and cost effective."

NITC Goals and Objectives (Revised)

- 1. Support the development of a robust statewide telecommunications infrastructure that is scalable, reliable and efficient. Objectives:
 - 1.1. Facilitate pilot projects to demonstrate the viability of aggregating and leveraging public sector purchases of telecommunications services to promote a robust telecommunications infrastructure (NETCOM). Develop institutional arrangements, define a technical architecture, and adopt a timeline to achieve statewide expansion of the NETCOM infrastructure.
 - 1.2. Study the feasibility of sharing networks and network support functions serving multiple sectors (Nebraska Network Feasibility Study).
 - 1.3. Establish standards for service levels to meet requirements of different sectors, including business, health care, and education. Identify strategies to achieve these levels of service, including the role of communities. Monitor differences in service levels and cost.
- 2. Support the use of information technology to enhance community and economic development. Objectives:
 - 2.1. Provide guidance and assistance to community technology committees, including coordinating efforts to implement the Technologies Across Nebraska action plan.
 - 2.2. Develop a vision and strategy for expanded use of telehealth.
 - 2.3. Support strategies for developing "intellectual infrastructure".
- 3. Promote the use of information technology to improve the efficiency and delivery of governmental and educational services, including Homeland Security. Objectives:
 - 3.1. Support planning and coordination of information technology investments relating to Homeland Security.
 - 3.2. Support successful implementation of the Nebraska Information System (NIS).
 - 3.3. Support implementation of the state's E-government strategy.
 - 3.4. Adopt technical standards, guidelines and enterprise methods to promote efficient use of information technology.

- 3.5. Promote activities to protect the security of information technology systems.
- 3.6. Define the role of the NITC with respect to local government technology issues, and the relationship of the NITC to existing state and local coordinating entities.
- 4. Promote effective planning, management and accountability regarding the state's investments in information technology. Objectives:
 - 4.1. Evaluate the existing procedures for project planning and management and technical review of state-owned or state-supported information technology investments.
 - 4.2. Document progress in achieving the goals and objectives of the NITC.
 - 4.3. Assist the Governor and Legislature in reviewing technology-related budget requests and providing a prioritized list of projects.

Interim Report

Nebraska Network Workgroup Of the Nebraska Information Technology Commission

April 30, 2002

http://nitc.nol.org/nitc/network/

Prepared by the

Office of the Nebraska Information Technology Commission

(Date of last revision: April 10, 2002)

NOTE: Staff of the NITC prepared this interim report. It has not undergone formal review and adoption by the Nebraska Network Workgroup. Part or all of the content is subject to corrections and other changes.

Draft Interim Report Nebraska Network Workgroup

Table of Contents

- A. Background
- **B.** Definition
- C. Summary of Existing Networks
- D. Report on Strengths and Weaknesses of Existing Networks
 - 1. Strengths and Weaknesses
 - 2. Opportunities and Challenges
- E. Summary of Objectives for a Nebraska Network
- F. Potential Participants and Stakeholders
- G. Evaluation of Other States' Networks
 - 1. Colorado
 - 2. Indiana
 - 3. Iowa
 - 4. Kansas
 - 5. Missouri
 - 6. North Dakota
 - 7. Oklahoma
 - 8. South Dakota
- H. Summary of Preliminary Findings

A. Background

The NITC established the Nebraska Network Workgroup "to evaluate the feasibility of the development of a digital network and related support functions to serve education, communities, and state government that could be accomplished through a statewide consortium." Membership on the workgroup includes representatives of higher education, K-12 schools, Education Service Units (ESUs), telehealth providers, libraries, local government, state government and the NITC Technical Panel. The Office of the NITC is providing staff support for the study. Agendas, minutes, and supporting material are available on the website for the workgroup: (http://nitc.nol.org/nitc/network/).

As described in the workgroup charter, the Nebraska Network addresses the management of communications networks rather just aggregating the acquisition of telecommunications services, which is the focus of the NETCOM project (http://www.doc.state.ne.us/netcom/index.html).

The charter for the workgroup set forth ten objectives:

- 1. Report on the strengths and deficiencies of existing telecommunications networks serving state and local public sector entities;
- 2. Examine the strengths, weaknesses, opportunities, and risks pertaining to the concept of a statewide digital network;
- 3. Basic requirements and critical success factors for a statewide digital network;
- 4. Address security issues related to a statewide digital network;
- 5. Evaluate different models for implementing a statewide consortium, including participation, governance, and operational authority;
- 6. Solicit suggestions and comments from affected entities;
- 7. Report findings and recommendations, including relationship to NETCOM and incremental options for consideration by the NITC;
- 8. Prepare a business case and estimate of fiscal impact for all recommendations and options;
- 9. Report on different funding models and strategies and the corresponding levels of service;
- 10. If needed to attain the goals listed above in an efficient manner, develop a set of statutory changes for consideration by the NITC for recommendation to the Governor and Legislature.

The work plan included the following steps and timeline:

February: Review Existing Networks and Identify Strengths and Weaknesses

March: Identify Goals, Objectives, and High Level Requirements

April: Review Model Networks in Other States

May: Develop Business Case

June: Prepare Draft Report (Including Opportunity for Public Comment)

July: Review, Revise and Adopt Draft Final Report

August: Present Draft Final Report to NITC Councils and Tech Panel

September: Present Final Report to the NITC

B. Definition

The term, "network", has a wide range of meanings, encompassing the Internet, digital connections between two or more computers, and even an informal alliance among

1

people who stay in contact with each other. Digital networks may be local in scope (local area network – LAN). They may connect multiple buildings in close proximity (campus network) or scattered around a city (municipal area network – MAN). Digital networks may cover large distances (wide area network – WAN).

The focus of the Nebraska Network workgroup is on the last category.

C. Summary of Existing Networks

Networks permit the easy exchange of electronic information. Networks may serve voice, video, or data functions, or a combination of all three. Networks arose in response to specific requirements of agencies. A few examples include the Nebraska law enforcement network connecting local sheriffs and police departments to the State Patrol's databases, the county automation network providing state applications to county offices, regional distance education consortia, the state's extensive satellite system for distance education, and the University's network connecting different campuses and county extension offices.

Several factors have promoted an ad hoc approach to building networks. The need for a network typically arises from a single sponsor with a specific application, such as those listed above. By necessity, the sponsor limits the scope of the network to specific requirements that serve the sponsor's responsibilities. In addition, the application determines the points to be connected, capacity requirements, and sometimes even the technology that can be used. Even when sharing a network is technically possible, concerns about security or conflicting use between applications may require isolated circuits. Funding is also a factor, because the sponsoring organization may face legal restrictions that make it difficult to share network costs. Federal OMB cost allocation regulations is one example. The e-rate program of the Federal Communications Commission is another example. Technology also impedes sharing resources, when sponsors develop networks without the benefit of unifying standards. The regional distance education consortia are an example, because the absence of a common standard prevents different regions from exchanging distance education classes. Finally, technical requirements for some applications or computers may dictate specific communications protocols, which are incompatible with other systems.

At least 9 public entities operate about 30 statewide or regional networks. This number is not precise, because there is some variation among agencies in what constitutes a separate network. These numbers do not include many entities that operate local or campus networks within a small geographic area. In addition, to these numbers, twelve regional distance education consortia provide video and data services to a total of 289 high schools. Each distance education consortia is associated with one or more Education Service Unit (ESU).

A list of networks is included in the appendix. More detailed information is available on the workgroup's website (http://nitc.nol.org/nitc/network/). Location information for each network is being entered into a GIS application to permit easier display and analysis.

Organizations that support the most networks include:

Department of Administrative Service Nebraska Education Telecommunications University of Nebraska

More networks are being created. The Military Department is building a "Distributed Training Network, which will carry video and audio teleconferencing, Internet, and other applications. It will be part of a larger federal infrastructure and will connect eight sites in Nebraska. The Department of Health and Human Services faces a federal mandate to insure high-speed connectivity with public health departments, healthcare organizations, law enforcement agencies, and public officials. Possible uses of the "Health Alert Network" include providing Internet access, distributing critical health information to health care entities, and supporting automated exchange of clinical and lab data for event detection.

The Department of Roads, Nebraska Emergency Management Agency, and the State Patrol are planning a "joint operations center", which will include some network functions. The joint operations center (JOC) will include aspects of a network operations center for managing the Department of Roads "Intelligent Transportation System" and other communications requirements of the JOC.

The Nebraska Legislature is considering LB 1211, which would authorize a statewide public safety communications system. A critical piece of the system would be a network operations center.

The original NETCOM RFP included detailed requirements for a network operations center, which would be responsible for management and quality assurance of aggregated telecommunications capacity serving a broad range of end users.

D. Report on Strengths and Weaknesses of Existing Networks

<u>Strengths.</u> A clear strength of the existing environment is the number of networks that exist and the state's telecommunications infrastructure that makes these networks possible. Nebraska's telecommunications companies and other entities have made major investments in installing the physical infrastructure such as fiber optic cable that forms the basic foundation for building digital networks. The extent and wide distribution of the physical layer has greatly facilitated the development of networks wherever they have been needed within the state.

Another strength is the technological expertise that different entities have assembled to manage existing networks. The knowledge, skills, and willingness to communicate and provide assistance to others represent a major advantage.

The existing structure provides a high level of responsiveness to users, and the NITC provides a means for encouraging collaboration.

<u>Weaknesses.</u> A major weakness is the lack of a vision and strategic direction for building and using networks in the state. At present, there is no high level champion who serves the role of an advocate for the benefits of developing a unified network.

Lack of consolidation is another weakness that leads to a number of shortcomings. These include underutilization of existing networks, thus realizing less than optimum value from investments, problems of interoperability, and lack of market power when negotiating with providers. At times, concerns about institutional control impede cooperation. Fragmentation also makes it harder for existing networks to stay current with changes in technology.

Another weakness is the general absence of interconnectivity among video networks. This includes the lack of seamless scheduling for participating entities. Although the NITC recently adopted two video standards, considerable work is needed to on a migration plan and scheduling issues.

External constraints are also a weakness. LATA issues add complexity and cost to some networks. Real or perceived statutory barriers preclude some options and effective action in some circumstances.

<u>Opportunities for Improved Services and Increased Efficiency.</u> The demand for new networks and new services offer an opportunity to reassess the best means for delivering services and achieving efficiency. Homeland Security, the proposed Health Alert Network, network support for the state's new accounting and human resource system (NIS), and expansion of Internet 2 are examples.

Entities external to Nebraska also offer new opportunities for aggregating purchasing power. The National Tele-Ed Alliance is one service that could be tapped. Interest in rural development should reinforce attention to better collaboration on network issues. In the same way, issues relating to rural health, access to e-government services, access to educational services for lifelong learning, and access to digital library services require widespread connectivity and robust networks. Good collaboration on networks makes it possible to transcend organizational boundaries for delivery of services.

<u>Challenges to Network Development</u>. Finding champions at all levels of government and communicating a vision and concept for managing networks pose the biggest challenges to future development. Gaining consensus and getting cooperation and acceptance are necessary conditions for success, which will be hard to achieve. Funding, overcoming policy barriers, and preparing a plan to share with policy makers are other challenges. Implementation issues such as migration plans, choosing private partners, and making decisions on specific technologies are other difficult matters.

E. Summary of Objectives for a Nebraska Network

The March 14, 2002, meeting of the Nebraska Network workgroup focused in identifying potential goals and objectives that greater collaboration should serve. Out of an initial list of 28 objectives, the workgroup identified twelve key issues and ranked them in order of priority.

Enabling the seamless flow of all types of information shared top billing on the list of priorities. This requires statewide compatibility of systems, which is essential for improving the value of networks.

Another major task is to document a strong business case for greater collaboration or possible consolidation of networks. This entails communicating both the vision and measurable benefits of statewide access to systems. Identifying potential utilization of a statewide infrastructure to serve multiple applications is a logical part of developing a strong justification for a unified system. Providing support for Homeland Security and achieving efficient utilization of resources were separate objectives that also buttress the business case.

The workgroup listed several operational issues as very important objectives. These include:

- Creating a network operations center to manage multiple systems and provide customer service;
- Defining a governance structure to oversee resources;
- Overcoming policy barriers; and
- Insuring the full range of security protections.

As an objective, the workgroup felt that it was important to "exclude no one, unless unique requirements or policy/geographic barriers exist." The workgroup also believes that encouraging competition and promoting equal treatment of providers should be objectives.

F. Potential Participants and Stakeholders

Network work group members discussed the issue of participants and stakeholders at length. The group is uncertain who to include and who to exclude. There was discussion concerning the involvement of private profit or non-profit entities and organizations. Such entities could include, but are not limited to hospitals, nursing homes, and school districts.

Potential services or involvement could include, but are not limited to; Internet, Internet 2, Distance Learning, Email, Tech Support, Video Conferencing, Scheduling System, Web Server, File Print Service, Healthcare, Urban and Rural Schools, Electronic Data Sets (benefiting libraries), both synchronous and asynchronous services.

Some members of the workgroup cited multiple reasons for initially taking a broad, inclusive approach to determining participants and scope of a statewide network. First, when voice, video and data are all in digital format, there is little or no distinction in the underlying technology. Second, a mix of technologies will often be required to serve an application or function. For example, the public safety wireless system will include a substantial landline component. Third, networking technology that supports one application may have other potential uses, which would generate additional value for the investment. The opportunity to use digital TV spectrum for other data applications is an example. Finally, there are some issues like security that are common to all networks.

G. Evaluation of Other States' Networks

At the April 4 meeting, the workgroup evaluated statewide networks in nine states. The states were chosen to serve as a selective sample of the many different types of existing statewide networks. A summary of each network is on the workgroup's website. The NETCOM technical advisory group also provided a technical assessment of each model.

COLORADO. The Colorado Multi-Use Network (MNT) project is a partnership between the State of Colorado and Qwest to build a high-speed fiber-optic network linking rural and urban Colorado. The State will aggregate Colorado State government agency telecommunication requirements from its current multiple networks into a single network to reduce administrative and maintenance costs to the State. As anchor tenant, the State's investment will help leverage the development of telecommunications infrastructure and expand delivery of advanced services to all geographic regions of the state using a system of 70 aggregation points. The MNT is being implemented in three phases that began in June 2000 and will be completed in 2003.

Currently, the MNT has assessed a 23% telecommunications surcharge to all State agencies to help finance the MNT and has further been unable to convert most K-12 education entities to the MNT due to the inability of staff to file a successful e-rate application. The state's network staff is working hard to encourage application layer development to ride atop the MNT Network. Qwest has a contract to provide the services of a network operations center from its Minnesota office. Ongoing funding is estimated at \$13 million per year. Estimated state employee FTE is 12 plus contracted services.

<u>INDIANA</u>. The Indiana Higher Education Telecommunication System (IHETS) was created in 1967 by the Indiana General Assembly to permit sharing of educational resources via technology. Its members are Indiana's seven public and 31 private colleges and universities. Partners include K12 schools, public libraries, state government, and public broadcasting. IHETS Services and Operations include the Indiana Telecommunications Network (ITN) which now serves more than 600 college campuses, K-12 schools, Learning Centers, libraries, and state government offices. IHETS also manages a satellite-based television network, an Audio and Video Conferencing Bridge, and an inter-campus telephone network that handles over 13 million minutes of long distance telephone calls each year. IHETS also supplies Integrated Network Services that assists member institutions in linking technological capabilities with the needs of users.

Currently, the ITN is facing severe funding shortfalls with costs expected to escalate. IHETS receives \$7.3 million per year to subsidize operations. The ongoing costs that were retrieved from the ITN Website are many times the costs of Nebraska rates. The telecommunications partners providing the ITN are ATT and Ameritech. Estimated IHETS and ITN FTE estimate is 95.

<u>IOWA</u>. The Iowa Communications Network (ICN) is a state agency that administers a statewide fiber optics network. Authorized users are identified by the Code of Iowa Chapter 8D. Authorized users include: All accredited K-12 school districts and private schools in the State, all accredited public and private colleges and technical educational institutions, all State Agencies, all Federal Agencies including National Guard Armories, the United States Post Office, hospitals and physician clinics (video and data services only), and public libraries. ICN currently supports 1400+ entities from the list above. They currently support over 800 full-motion automated classrooms. They provide 300,000 hours of video per year and 5000+ hours of classroom access per week in 1400 sessions. Clients are free to use ICN or any other provider keeping prices competitive. The ICN video and data connections are organized around their 16 Area Education Agencies that are similar to Nebraska's ESUs.

Currently, the ICN is expected to reach financial and operational self-sufficiency in 2007. Original construction costs exceeded \$200 million. Over the past 12 years, the ICN has received an estimated \$156 million in Federal funds for test bed activities. The State currently subsidizes video service at the rate of \$2.2 million, which is expected to be phased out. The ICN offers a variety of services including voice, video and data-Internet 1. The ICN was built originally because the telecommunication companies were unwilling to provide the network and not interested in reaching to rural areas. Estimated state employee FTE is in excess of 150, with 95 FTE in the ICN network operations center.

KANSAS. The Kansas Research and Education Network (KanREN) is a non-profit consortium of colleges, universities, school districts, libraries and other organizations in Kansas, organized to provide statewide network connectivity of data and Internet1 in support of education and research. KanREN includes 9 regents state colleges and universities, 12 community colleges, 11 private universities, 14 school districts, and 5 other organizations that are education-related. Membership in the KanREN consortium is open to any Kansas college, university, school district, library, or educational consortium. Other non-profit organizations may qualify for KanREN membership as well, subject to the approval of the KanREN Executive Committee. Most KanREN member institutions also obtain dedicated Internet connections via the KanREN statewide network backbone. The KanREN consortium operates a statewide backbone network utilizing the Internet protocols (IP), with multiple connections to the Internet. This network also provides Internet 2 connectivity for member institutions that belong to the Internet 2 consortium.

Currently, KanREN is completely funded by membership and connection fees paid by its member institutions. Annual operational costs were unavailable at this time. The KanREN Network Operations

Center is contracted to the University of Kansas. A funding initiative (called KAN-ED) before the Kansas Legislature is asking for an additional \$10 million to connect schools and libraries up to the KanREN backbone. Estimated KanREN FTE is 4 plus contracted services.

MISSOURI. The Missouri Research and Education Network (MOREnet) is affiliated with the University of Missouri and is Missouri's not-for-profit electronic information network. MOREnet serves 71 higher education institutions, 512 elementary and secondary education school districts, 121 public libraries, all state agencies, and other organizations and government agencies in Missouri. MOREnet is comprised of several projects and programs serving these various groups. The Missouri Educational Research Consortium (MERC) serves public higher education institutions. The Affiliates Program serves all the organizations that MERC does not serve, including private K-12 schools and libraries, non-profit organizations and similar organizations not eligible for other MOREnet-managed programs. MOREnet provides high-speed, reliable Internet access to the state's public sector. In addition to Internet connectivity, MOREnet provides training and technical support, online reference resources, opportunities to converse with colleagues in technical and topical discussion lists, security education and assistance, and videoconferencing.

Currently, MOREnet derives approximately \$27.1 million yearly from Core funding (\$12.1), Elementary and Secondary Education (\$6.4), State Libraries (\$3.3), and Organization Fees (\$5.2). Initial funding and implementation included approximately \$33 million from various funding sources within and outside Missouri. E-rate reimburses another \$7.5 million that is used mainly to fund Grades 3-4 e-MINTS high-tech classrooms. Fees are assessed for e-mail service and web page hosting. Estimated MOREnet employee FTE is 140.

NORTH DAKOTA. The Statewide Technology Access for Government and Education Network (STAGEnet) is the official name for North Dakota's statewide network. The STS (SENDIT Technology Services) serves as a liaison between schools and the Information Technology Department. The State Information Technology Department (ITD) is responsible for STAGEnet infrastructure. The Information Technology Department (ITD), overseen by the State CIO, is responsible for all wide area network services planning, selection, and implementation for all state agencies, including institutions under the control of the State Board of Higher Education, counties, cities, and school districts. ITD is also responsible for computer support services, software development, statewide communications services, standards for providing information to other state agencies and the public through the Internet, technology planning, process redesign and quality assurance. ITD has broad responsibilities to all state agencies and the citizens of the state in building a secure statewide area network providing for the aggregation of data, voice, video, and multimedia into a backbone insuring functionality. The development of the state wide area network is coordinated with the North Dakota University System.

Currently, STAGEnet receives some support from the Legislature to offer services. The main contractor was thought to be a consortium of small independent telephone companies although Qwest is mentioned on the STAGEnet Website. Telecommunications Services takes care of telephone systems and services, video services, network infrastructure, and help desk support. Estimated state employee FTE is 22.

OKLAHOMA. OneNet, Oklahoma's telecommunications and information network for education and government is a Division of the Oklahoma State Regents for Higher Education operated in cooperation with the Oklahoma Office of State Finance. This comprehensive network is utilizing fiber optics and wireless technologies to transmit video, voice and data throughout Oklahoma. OneNet is not a state-owned utility, but rather a state-lead partnership among telecommunications companies, equipment manufacturers and service providers. Upon its implementation, OneNet focused on establishing the necessary hub sites throughout Oklahoma to provide the infrastructure necessary to support the high-speed telecommunications network. In addition, it moved aggressively to establish an equitable rate structure and enroll customers. This electronic linkage is made possible through a partnership between the State of Oklahoma and private telecommunications companies—enabling OneNet to negotiate reduced rates and utilize established, private communications networks. OneNet's state-of-the-art technology and staff currently provide high-speed communications to a variety of Oklahoma entities such as: public and vocational-technical schools;

colleges and universities; public libraries; local, tribal, state and federal governments; court systems; rural health care delivery systems; and programs engaged in research.

Currently, OneNet is in the process of converting video transmission to the H.323 standard. Original state capital support for construction of OneNet was \$14 million. Pricing for ongoing and service costs for participating entities is not as favorable as Nebraska. Estimated state and university employee FTE is 60.

SOUTH DAKOTA. The Digital Dakota Network (DDN) is a state-supported digital communication system that delivers high-speed data connectivity to all public schools in South Dakota. In addition, the DDN Video delivers high-quality video conferencing capabilities to high/middle school facilities within South Dakota. This system, created by Governor William Janklow, is a cooperative effort between the state of South Dakota and private corporate contributions. The objectives of the DDN Video are to provide a seamless statewide educational delivery system. Benefits of using the DDN Video include sharing educational resources; broadening course offerings; allowing teacher collaboration; saving time, travel and other resources; and removing geographic barriers. The DDN video equipment is intended for use in K-12 education. One of DDN's claims to fame is that the actual wiring of schools occurred over an 18-month period using prison labor with completely standardized equipment throughout the entire system. Major providers are Qwest and Verio and a third provider is sought for additional Internet provision. Six public universities and one private university currently participate in Internet2. Qwest contributed \$17 million to the original startup with the State contributing \$12 million.

Currently, ongoing costs are estimated at \$9 million and services are provided at no cost to the schools. State government and higher education services are mentioned but not detailed as to how they ride the state network, only that there are 30 university and 300 state government circuits. The management of the network is definitely a top-down approach and the Bureau of Information Technology and the State CIO are principally responsible. The nonprofit entity, Technology and Innovations in Education (TIE), handles all the teacher and administrator technology training with support from the Dept of Education and Cultural Affairs and member school contributions. Estimated state employee FTE supporting the DDN is 19.

WYOMING. The Wyoming Equality Network (WEN) is a statewide, high-speed data and video network that connects all Wyoming public schools and gives communities capability for telemedicine, economic development and community outreach applications as well as access to the Internet. The WEN was created through the state's agreement with Qwest and enabled the state to provide telecommunications capabilities to schools and related entities. In addition, WEN is an ATM backbone connecting 3 com switches. The Wyoming Department of Education (WDE) is essentially the "owner" of the network. Wyoming's Department of Administration and Information (A & I) provides central support to the state and will act as the intermediary between the school district and their main provider for purposes of ordering and making payments for enhancements and Owest Internet access service. The Information Technology Division (ITD) provides MIS applications, computer center, and telecommunications support for the state, ITD manages the network, bills WDE for services when appropriate and serves as the collection agent for WEN. The A & I Telecommunications Division manages the scheduling of video conferencing, bills entities for services provided, and oversees the contract with their main provider, Qwest. The WEN supports all schools via their intranet. There are 48 school districts in Wyoming. Schools include all grade schools, middle schools, high schools, junior/community colleges and universities. Any entity wanting to connect to the WEN needs to have permission from the Network/Security Policy Group. The entity wanting access needs to be sure that it is in compliance to all standards of the network. Network operation, network management and monitoring are maintained by Owest Network Management Services out of Minneapolis. Their services include, but are not limited to, mapping, trouble tickets, performance measurement, and reporting. Qwest personnel will perform all on-site maintenance of the network product and equipment. Owest employs three field agents in Wyoming and service managers. WEN routers are maintained online and a local data technician augments Qwest. School districts must provide a central point of contact (POC) for problem resolution.

Currently, the WEN is serving all K-12 districts and most, if not all, of the postsecondary institutions. Most costs are covered through legislative appropriations but some video charges are passed back to the users of

the system. Almost all service, management, and new service is the responsibility of Qwest. Estimated state employee FTE supporting the WEN is 5.

After discussing each state, the workgroup decided that none represented a model for emulation in every respect. Each has strengths and weaknesses, which provide a basis for developing a hybrid model for further consideration. Given constraints on resources, it will be important to build on what already exists or is being developed, including NETCOM aggregation efforts.

H. Summary of Preliminary Findings

- Telecommunications networks are critical to the operations of state and local public entities
- Networks represent a large investment that is likely to grow in the future.
- Existing networks cannot achieve economies of scale.
- A different approach will be needed to promote interoperability, sharing of resources, and better utilization.
- A vision and strategy for statewide networks is needed. Without a vision or strategy, the trend of separate networks serving specific applications will likely continue.
- NETCOM aggregation efforts should form the foundation for any additional network related services.

Appendix

Network				
Operations	Client	Description / Purpose	Data Speeds	Future
DAS	Dept of	Data connections to all facilities	56K to T1 via	Video
	Corrections	(11 sites)	Frame Relay	
DAS	County	Data connections to all county	56K to T1 via	Upgrading to IP;
	Automation	courthouses	Frame Relay	fractional T1 service is
				needed at some sites
DAS	Dept of	Provides data and Internet	9.6BPS to T1	Fractional T1 service is
	Education	service to 19 sites statewide		needed at some sites
DAS	Health &	Data connections to 58 sites	56K to T1	Fractional T1 service is
	Human	statewide		needed at some sites
	Services			
DAS	HHS NFOCUS	Data connections to 50 sites	56K to T1	Fractional T1 service is
		statewide		needed at some sites
DAS	HHS WIC	Data connections to 15 sites	56K with one T1	
		statewide		
DAS	Dept of Labor	Data connections to 17 sites	56K to T1	Fractional T1 service is
	1	statewide		needed at some sites
DAS	State Patrol	Data connections to 57 law		
		enforcement agencies		
DAS	Revenue /	Data connections to 12 sites	56K to T1	Fractional T1 service is
	Property Tax	statewide		needed at some sites
DAS	Dept of Roads	Data connections to 71sites	56K to T1	Fractional T1 service is
	1	statewide		needed at some sites
DAS	State Colleges	Data and video connections to 6	T1 to DS-3	Fractional T1 service is
		sites		needed at some sites
DAS	24 Agencies	One or a few Network Sites		
		into or within Lincoln		
Military Dept.	National Guard	Nebraska National Guard	T1	Plans to add 3 more
		Distance Learning Network.		sites.
		Five sites connected now, with		
		access to national system.		
NETC	DOC / state	Nebraska Video Conference	T1	Fractional T1 service is
	agencies	with 34 sites in 18 cities		needed at some sites
NETC	Public	Cable Television Network 34	Satellite	
		EduCable Systems Statewide		
NETC	Public	Television Network – 9	Satellite	
		transmitters; 16 translators		
NETC	Schools	NEB*SAT Network 2 – 303	Satellite	
		Digital Receive Sites in		
		Nebraska; 200+ sites in 11		
		other states		
NETC	Higher Ed and	NEB*SAT Network 3 35	Satellite	
	K-12 schools	compressed video sites in 18		
		cities		
NETC	Private	CorpNet Private Training Sites	Satellite	
	Corporations	(24 sites in 6 cities)		
NETC	Public	FM Radio Network – 9	Satellite / radio	

NETC UNL / UNO Fibr Optic links for distance education Closed Circuit Television for University and state office buildings in Lincoln Central CC Community Campuses College Metro Mid-Plains Community College SE			transmitters, 5 translators	transmitters	
NETC State agencies Closed Circuit Television for University and state office buildings in Lincoln Central CC Community Campuses College Metro Community Campuses College SE Community Campuses College SE Community Campuses College Campuses College SE Community Campuses College SE Community Campuses College SE Community Campuses College SE Community Campuses College Campuses College SE Community Campuses College Connection to N.P. Provides Internet connections For 3 campuses, College Connection to N.P. Provides Internet connections For 3 campuses, College Connection to N.P. Provides Internet Connection to Norfolk College College Connection to Norfolk College					
Netro	NETC	UNL / UNO			
Central CC Community Campuses Connects campuses education centers in 6 communities					
Central CC Connects campuses education T1 - D83	NETC	State agencies			
Central CC Community Campuses Central CC Connects campuses education Central CC Campuses					
Community College Metro Community College SEC Compuses College SEC Community College SEC Community College SEC Community College SEC Community Compuses Community Compuses Community Community Community Compuses Community Compuses Northeast Community Connects campuses or learning Community Connects and pusses or learning Community Connects campuses Provides connections Provides Internet connections Connection to N.P.2 Video connection to Norfolk NU Campuses And offices Serves 50,000+ students and 15,000+ employees. The University uses about 90 meg of Internet 1 service and 130 meg of Internet 2 service. Provides Internet access to Creighton University in Omnha. Central NE DLC K-12 Distance Learning Crossroads DLC K-12 Distance Learning North Central K-12 Distance Learning Serves 16 high schools DS3 video and T1 data to each location. DS					
Metro Community Campuses SECC 100 mb Ethernet and video circuit connecting three campuses and administrative offices; K-12 video connection.			*	T1 – DS3	
Metro Community Campuses Connects campuses or learning SEC Community College SE Community	•	Campuses	centers in 6 communities		
Community College SE Community College Campuses Connecting three campuses and administrative offices; K-12 video connection. Connects campuses or learning control to Norfolk College Northeast Community College Northeast Community College Northeast Community College Northeast Community Compuses Confices, K-12 video connection to N.P. Provides Internet connections for 3 campuses; K-12 video connection to Norfolk Provides Internet connections for 3 campuses; K-12 video connection to Norfolk Provides Internet connections Contection to Norfolk Provides Internet connections for 3 campuses; K-12 video connection to Norfolk Provides Internet connections for 3 campuses; K-12 video connection to Norfolk Provides Internet connections for 3 campuses contection to Norfolk Provides Internet connections for 3 campuses contection to Norfolk Provides Internet connections for 3 campuses; K-12 video connection to Norfolk Provides Internet connections for 3 campuses; K-12 video connection to Norfolk Provides Internet connections for 3 campuses; K-12 video connection to Norfolk Provides Internet connections for 3 campuses; K-12 video connection to Norfolk Pro					
College SEC Community SECC 100 mb Ethernet and video circuit connecting three campuses and administrative offices; K-12 video connection.					
SEC Campuses Campu	2	Campuses	centers at 9 locations		
College Campuses circuit connecting three campuses and administrative offices; K-12 video connection. Mid Plains Community College College Video connection to N.P. Northeast Campuses Campuses or learning centers at 4 locations; K-12 video connection to N.P. Northeast Campuses Colleges Video connection to N.P. Northeast Campuses Colleges Colleges Video connection to Norfolk Campuses Colleges Viniversity of Connection to Norfolk Viniversity of Sheraska Viniversity of Connection to Norfolk Viniversity of Serves 50,000+ students and 15,000+ employees. The University uses about 90 meg of Internet 1 service and 130 meg of Internet 2 service. Provides Internet access to Creighton University in Omaha. Central NE DLC K-12 Distance Learning Crossroads DLC DLC Crossroads DLC Crossroads DLC Crossroads DLC Crossroads DLC					
Community Campuses Comnection Community Compuses Comnection Community Compuses Comnection Community Compuses Comnection Comnection Comnection Comnection Comnection Comnection Comnection Comnection Comnection Compuses Compuses Comnection Comnection Comnection Comnection Compuses	-				
Mid Plains Community College Northeast Community Colleges Northeast Northeast Northeast Northeast Northeast Northeast Northeast Northeast Central NE DLC Central NE DLC Learning Crossroads DLC Crossroads	College	Campuses			
Mid Plains Campuses Frovides Internet connections Frovides Internet Campuses					
Community College Northeast Community Colleges Northeast Community Colleges Northeast Community Colleges University of Nebraska Nebraska Central NE DLC Learning Crossroads DLC Learning Niobrara Valley Northeart Nebravalled Northeart North Central Northeart Northear					
Video connection to N.P. Northeast Northeast Campuses Frovides Internet connections for 3 campuses; K-12 video connection to Norfolk			1		
Northeast Community Campuses		Campuses	*		
Community CollegesCampuses (Connection to Norfolk)For 3 campuses; K-12 video connection to NorfolkUniversity of NebraskaNU Campuses and officesProvides full range of networking services for four primary campuses, extension and learning centers (6 locations) and 80+ county extension offices. Serves 50,000+ students and 15,000+ employees. The University uses about 90 meg of Internet 1 service and 130 meg of Internet 2 service. Provides Internet access to Creighton University in Omaha.Central NE DLCK-12 Distance LearningServes 17 high schoolsDS3 video and T1 data to each location.Crossroads DLCK-12 Distance LearningServes 11 high schoolsDS3 video and T1 data to each location.Eastern NE DLCK-12 Distance LearningServes 41high schoolsDS3 video and T1 data to each location.Niobrara Valley Tele-PartnershipK-12 Distance LearningServes 14 high schoolsDS3 video and T1 data to each location.Northeast NE DLCK-12 Distance LearningServes 16 high schoolsDS3 video and T1 data to each location.Northeast NE DLCLearningServes 9 high schoolsDS3 video and T1 data to each location.Northeast NE Learner's AcademyK-12 Distance LearningServes 11 high schoolsDS3 video and T1 data to each location.SandhillsK-12 Distance LearningServes 9 high schoolsDS3 video and T1 data to each location.ProgramServes 9 high schoolsDS3 video and T1 data to each location.Southeast NEK-12 Distance LearningServes 9 high schoolsDS3 video and T1 data to each location.					
Colleges Connection to Norfolk Provides full range of networking services for four primary campuses, and offices and offices Serves 50,000+ students and 15,000+ employees. The University uses about 90 meg of Internet 1 service and 130 meg of Internet 2 service. Provides Internet access to Creighton University in Omaha.					
University of Nebraska	,	Campuses	* '		
Nebraska and offices extension and learning centers (6 locations) and 80+ county extension offices. Serves 50,000+ students and 15,000+ employees. The University uses about 90 meg of Internet 1 service and 130 meg of Internet 2 service. Provides Internet access to Creighton University in Omaha. Central NE DLC					
Serves 50,000+ students and 15,000+ employees. The University uses about 90 meg of Internet 1 service and 130 meg of Internet 2 service. Provides Internet access to Creighton University in Omaha. Central NE DLC K-12 Distance Learning Crossroads DLC K-12 Distance Learning Eastern NE DLC K-12 Distance Learning Niobrara Valley Tele-Partnership North Central DLC Learning Northeast NE DLC Learning Northeast NE DLC Learning Northeast NE K-12 Distance Learning Northeast NE Learning Northeast NE Learning Northeast NE K-12 Distance Learning Northeast NE Learning Northeast NE K-12 Distance Learning Northeast NE K-12 Distance Learning Northeast NE K-12 Distance Learning Northeast NE N-12 Distance					
meg of Internet 1 service and 130 meg of Internet 2 service. Provides Internet access to Creighton University in Omaha. Central NE DLC K-12 Distance Learning Crossroads DLC K-12 Distance Learning Eastern NE DLC K-12 Distance Learning Niobrara Valley Tele-Partnership North Central DLC Learning K-12 Distance Learning Northeast NE DLC Learning Northeast NE DLC Northeast NE DLC Northeast NE Learning K-12 Distance Learning K-12 Distance Learning Northeast NE DLC Learning Northeast NE N-12 Distance N-12	Nebraska	and offices			
Central NE DLC					
Central NE DLC					
Learning Serves 11 high schools DS3 video and T1 data to each location.					
Crossroads DLC	Central NE DLC		Serves 17 high schools	DS3 video and T1 data to each location.	
Eastern NE DLC Learning Niobrara Valley Tele-Partnership North Central DLC Learning Northeast NE DLC Learning Northeast NE No	Crossroads DLC		Serves 11 high schools	DS3 video and T1 data to each location.	
Eastern NE DLC		Learning			
Learning Serves 14 high schools DS3 video and T1 data to each location.	Eastern NE DLC		Serves 41high schools	DS3 video and T1 data to each location.	
Niobrara Valley Tele-PartnershipK-12 Distance LearningServes 14 high schoolsDS3 video and T1 data to each location.North Central DLCK-12 Distance LearningServes 16 high schoolsDS3 video and T1 data to each location.Northeast NE DLCK-12 Distance LearningServes 9 high schoolsDS3 video and T1 data to each location.Northeast NE Learner'sK-12 Distance LearningServes 11 high schoolsDS3 video and T1 data to each location.Sandhills Technology Education ProgramK-12 Distance LearningServes 9 high schoolsDS3 video and T1 data to each location.Southeast NEK-12 Distance ProgramServes 72 high schoolsDS3 video and T1 data to each location.		Learning			
Tele-Partnership North Central DLC North Central DLC Northeast NE DLC Northeast NE DLC Northeast NE DLC Northeast NE DLC Serves 9 high schools DLC Northeast NE Learning Serves 11 high schools DS3 video and T1 data to each location. Technology Education Program Southeast NE K-12 Distance Serves 72 high schools 100 megabit video and data to each location.	Niobrara Valley		Serves 14 high schools	DS3 video and T1 data to each location.	
North Central DLC Learning Northeast NE DLC Learning Northeast NE DLC Learning Northeast NE K-12 Distance Learning Serves 11 high schools DS3 video and T1 data to each location. DS3 video and T1 data to each location. DS3 video and T1 data to each location. Technology Education Program Southeast NE K-12 Distance Serves 72 high schools 100 megabit video and data to each location.	•				
DLC Learning Serves 9 high schools DS3 video and T1 data to each location. Northeast NE Learning Serves 11 high schools DS3 video and T1 data to each location. Learner's Learning Academy Sandhills K-12 Distance Learning Education Program Southeast NE K-12 Distance Serves 9 high schools DS3 video and T1 data to each location. DS3 video and T1 data to each location. DS3 video and T1 data to each location.			Serves 16 high schools	DS3 video and T1 data to each location.	
Northeast NE DLC	DLC	Learning			
DLC Learning Northeast NE Learning Academy Sandhills Technology Education Program Southeast NE K-12 Distance Serves 11 high schools Learning Serves 11 high schools DS3 video and T1 data to each location.			Serves 9 high schools	DS3 video and T1 data to each location.	
Northeast NE Learning Learner's Learning Sandhills K-12 Distance Technology Education Program Southeast NE K-12 Distance Serves 9 high schools Serves 9 high schools DS3 video and T1 data to each location. DS3 video and T1 data to each location. DS3 video and T1 data to each location.					
Learner's Academy Sandhills K-12 Distance Technology Education Program Southeast NE K-12 Distance Serves 9 high schools Learning Serves 9 high schools DS3 video and T1 data to each location. DS3 video and T1 data to each location.	Northeast NE		Serves 11 high schools	DS3 video and T1 data to each location.	
Academy Sandhills Technology Education Program Southeast NE K-12 Distance Serves 9 high schools DS3 video and T1 data to each location. DS3 video and T1 data to each location. DS3 video and T1 data to each location.	Learner's				
Sandhills K-12 Distance Learning DS3 video and T1 data to each location. Technology Education Program Southeast NE K-12 Distance Serves 72 high schools 100 megabit video and data to each location.					
Technology Learning Education Program Southeast NE K-12 Distance Serves 72 high schools 100 megabit video and data to each location.		K-12 Distance	Serves 9 high schools	DS3 video and T1 data to each location.	
Education Program Southeast NE K-12 Distance Serves 72 high schools 100 megabit video and data to each location.					
Program Southeast NE K-12 Distance Serves 72 high schools 100 megabit video and data to each location.	0.5				
Southeast NE K-12 Distance Serves 72 high schools 100 megabit video and data to each location.					
	<u> </u>	K-12 Distance	Serves 72 high schools	100 megabit video and data to each location.	
	DLC	Learning			

Southwest NE	K-12 Distance	Serves 35 high schools	DS3 video and T1 data to each location.
DLC	Learning		
Tri-Valley DLC	K-12 Distance	Serves 40 high schools	Analog or DS3/T1 video and data to each
	Learning		location.
Western NE	K-12 Distance	Serves 24 high schools	DS3 video and T1 data to each location.
DLC	Learning		

12 DRAFT